
IV. *On the Proteaceæ of Jussieu. By Mr. Robert Brown, Lib. L.S.*

Read Jan. 17, 1809.

THE Linnean system of botany, though confessedly artificial, has not only contributed more than all others to facilitate the knowledge of species, but, by constantly directing the attention to those essential parts of the flower on which it is founded, has made us acquainted with more of their important modifications than we probably should have known, had it not been generally adopted, and has thus laid a more solid foundation for the establishment of a natural arrangement, the superior importance of which no one has been more fully impressed with than Linnæus himself.

There are still, however, certain circumstances respecting the stamina and pistilla, which appear to me to have been much less attended to than they deserve, both by Linnæus and succeeding botanists. What I chiefly allude to is the state of these organs before the expansion of the flower. The utility of ascertaining the internal condition of the ovarium before fœcundation will hardly be called in question, now that the immortal works of Gærtner and Jussieu have demonstrated the necessity of minutely studying the fruits of plants in attempting to arrange them according to the sum of their affinities, as in many cases the true nature of the ripe fruit, especially with respect to the placentation of the seeds, can only be determined by this means. Its importance is indeed expressly inculcated by many botanists,
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who, however, have frequently neglected it in practice: nor do I find any one who has steadily kept it in view, except Aubert Du Petit-Thouars in his excellent work on the plants of Madagascar and the Isles of France and Bourbon.

The bursting of the antheræ has, it is true, been generally observed, and many of its most unusual modes have been introduced into the characters of genera; but the examination of these organs, at a still earlier period, has been universally neglected; and hence the very imperfect knowledge which, even now, is possessed of their real nature in two of the most remarkable families of plants, the *Orchideæ* and *Asclepiadææ*.

Examples of the great advantage of observing the antheræ in this early stage will hereafter be given in my general remarks on the order which is the proper subject of this essay. But I trust I shall be pardoned for here introducing some account of their structure in *Asclepiadææ*, as it will enable me not only to bring forward the most striking proof of the importance of this consideration with which I am acquainted, but also, as I apprehend, to decide a question which has long occupied, and continues to divide, the most celebrated botanists.

The point in dispute is whether this order, comprehending *Asclepias*, *Cynanchum*, *Pergularia*, *Stapelia*, and several genera, at present confounded with these, ought to be referred to *Pentandria* or *Gynandria*, and, if to the latter, whether the antheræ are to be considered as five or ten; all of which opinions have had advocates of the greatest name in the science.

According to Linnæus, Jussieu and Richard they belong to *Pentandria*.

Linnæus has assigned no reason for his opinion, which, however, it appears he retained after he became acquainted with the observations of Jacquin and Rottboell; but it is probable he

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was induced to adopt it more from the consideration of the close analogy these plants have with the manifestly pentandrous Apocineæ, than from regarding them as strictly referable to this class; for, in his natural generic characters of *Asclepias* and *Pergularia*, he very clearly describes both these genera as gynandrous.

Jussieu has entered more fully into the subject, but seems also to have been chiefly guided by this analogy and the observations of others; as he concludes by expressing his doubts, respecting both the origin and use of the parts.

Richard, whose description of these organs I find in Persoon's Synopsis, has indeed come nearer to the solution of the question; his account, however, of the origin of the lateral processes hereafter mentioned, proves that this description was not altogether formed on actual observation.

Jacquin, the first botanist that submitted these plants to minute examination, and whose figures well illustrate most points of their structure, has adopted a very different opinion, referring them to Gynandria, in which he is followed by Koelreuter, Rottboell and Cavanilles, all of whom likewise agree with him in considering them as decandrous; while Dr. Smith, in his late valuable Introduction to Botany, who conceives that "no plants can be more truly gynandrous," regards them as having only five antheræ. And lastly Desfontaines supposes the five glands of the stigma to be the true antheræ, considering the attached masses of pollen as mere appendages to these.

All the authors who thus refer them to Gynandria seem quite confident in the justness of their views; and yet the inspection of a single flower bud overturns, as it appears to me, with irresistible evidence, the conclusion they had formed from premises apparently so satisfactory.

My attention, while in New Holland, having been much engaged

gaged by the plants of this family, the species in that continent being both numerous and with difficulty reducible to established genera: I there observed the following facts concerning them, all of which I have, since my return to England, confirmed by the examination of different species of the same tribe.

The observations of Jacquin on this subject being generally known, it must be unnecessary to enter into a minute description of those organs which are well exhibited by his figures in every respect, except as to the origin of the supposed antheræ.

If a flower bud of any plant of this family, while scarcely half the size it attains immediately before expansion, be carefully examined, it will be found that the polleniferous sacs, as they are termed by Jacquin and his followers, in which they suppose the antheræ to be merely immersed, are really the organs by which the fœcundating matter is secreted: for at this period they are perfectly closed, and consequently all communication cut off between the stigma and their contents now consisting of a turbid fluid or pulpy mass. If the stigma be at the same time observed, the gland-like bodies which originate in its grooved angles are already visible; but, instead of having the cartilaginous or horny texture which they at length acquire, are as yet semi-fluid, and of hardly a determinate form. Near the base of each side of these grooves a more superficial depression is observable, which, though in some cases extremely short, is in others of considerable length, and generally forms a right angle with the corresponding groove. In these depressions, the processes by which, at a more advanced stage, the contents of the antheræ are connected with the stigma, are immersed, and at this period they are found to be semi-fluid. By degrees the glands, as well as their lateral processes, acquire a firmer consistence, and the inferior or outer extremity of each of the processes, being extended beyond its depression

pression or furrow, on the bursting of the opposite cell of the corresponding anthera, firmly attaches itself to its contents, now become a regular mass of a waxy consistence.

If the accuracy of this statement be admitted, it will probably be allowed that the *Asclepiadeæ* cannot be regarded as gynandrous, especially in the sense in which they are so considered by botanists; but lest it should not be thought completely satisfactory, it may be added, that in a still earlier stage of the flower bud I have found the fecundating matter already secreted in the cells of the antheræ, while the glands of the stigma, as well as their processes, were absolutely invisible.

As to the question of their being pentandrous or decandrous, every analogy must lead us to refer them to the former class; nor indeed have they, when not considered as gynandrous, been ever supposed to belong to Decandria.

An œconomy, in many respects similar to that now described, obtains also in Orchideæ, in which, however, the processes connecting the antheræ with the stigma, where they exist, are in many cases derived from the masses of pollen themselves; but in others they as certainly originate from the stigma, or its glandular appendage.

The result of my examination of these two interesting orders of plants, I hope hereafter to submit to the Society; and I now proceed to the proper subject of the present paper.

The natural order of *PROTEÆ*, or, as it is less exceptionably called, *PROTEACEÆ*, was first established in the *Genera Plantarum* of the celebrated Jussieu; and the description there prefixed to it will, with a few alterations, still apply to the order, now that it has received so many additions, not only in species, but in very distinct genera, several of which were first published by

Dr. Smith, in the 4th vol. of the Society's Transactions, and others are in the present paper submitted to the consideration of botanists.

The general description and definition of the order will be most advantageously placed at the head of its systematic arrangement; before entering upon which, I shall offer some remarks on its geographical distribution, and likewise on such modifications of structure in the different organs as appear to be of the greatest importance in indicating or characterizing genera.

The geography of plants being as yet in its infancy, the smallest addition to our knowledge of a subject which promises to become of considerable importance, will probably be received with indulgence; and in this persuasion I venture to make the following observations on the order before us. In the first place, it is remarkable that the *PROTEACEÆ* are almost entirely confined to the southern hemisphere. This observation originated with Mr. Dryander, and the few exceptions hitherto known to it, occur considerably within the tropic. The fact is the more deserving of notice, as their diffusion is very extensive in the southern hemisphere, not merely in latitude and longitude, but also in elevation; for they are not only found to exist in all the great southern continents, but seem to be generally, though very unequally, spread over their different regions: they have been observed also in the larger islands of New Zealand and New Caledonia; but hitherto neither in any of the lesser ones, nor in Madagascar. As in America, they have been found in Terra del Fuego, in Chili, Peru, and even Guiana, it is reasonable to conclude that the intermediate regions are not entirely destitute of them. But with respect to this continent, it may be observed, that the number of species seems to be comparatively small, their organization but little varied; and further, that they have a
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much greater affinity with those of New Holland than of Africa.

Of the botany of South Africa, scarce any thing is known, except that of the Cape of Good Hope, where this family occurs in the greatest abundance and variety; but even from the single fact of a genuine species of *Protea* having been found in Abyssinia by Bruce, it may be presumed, that in some degree they are also spread over this continent.

With the shores, at least, of New Holland, under which I include Van Diemen's Island, we are now somewhat better acquainted, and in every known part of these, *Proteaceæ* have been met with.

But it appears that, both in Africa and New Holland, the great mass of the order exists about the latitude of the Cape of Good Hope; in which parallel it forms a striking feature in the vegetation of both continents.

What I am about to advance respecting the probable distribution of this family in New Holland, must be very cautiously received; as it is in fact chiefly deduced from the remarks I have myself made in captain Flinders's Voyage, and subsequently during my short stay in the settlements of New South Wales and Van Diemen's Island, aided by what was long ago ascertained by Sir Joseph Banks, and by a very transitory inspection of an herbarium collected on the west coast, chiefly in the neighbourhood of Shark's Bay, by the botanists attached to the expedition of captain Baudin.

From knowledge so acquired I am inclined to hazard the following observations.

The mass of the order, though extending through the whole of the parallel already mentioned, is by no means equal in every part of it; but on the south-west coast forms a more decided feature

feature in the vegetation of the country, and contains a far greater number of species than on the east:—and in that part of the south coast, which was first examined by captain Flinders, it seems to be more scanty than at either of the extremes.

On the west coast also, the species upon the whole are more similar to those of Africa than on the east, where they bear a somewhat greater resemblance to the American portion of the order.

From the parallel of the mass, the order diminishes in both directions; but the diminution towards the north is probably more rapid on the east than on the west coast.

Within the tropic, on the east coast, no genera have hitherto been observed, which are not also found beyond it; unless that section of *Grevillea*, which I have called *Cyclopterae*, be considered as a genus. Whereas at the southern limit of the order several genera make their appearance, which do not occur in its chief parallel.

The most numerous genera are also the most widely diffused. Thus *Grevillea*, *Hakea*, *Banksia*, and *Persoonia*, extensive in species in the order in which they are here mentioned, are spread nearly in the same proportion; and they are likewise the only genera that have as yet been observed within the tropic.

Of such of the remaining genera, as consist of several species, some, as *Isopogon*, *Petrophila*, *Conospermum*, and *Lambertia*, are found in every part of the principal parallel, but hardly exist beyond it. Others, as *Josephia* and *Synaphea*, equally limited to this parallel, have been observed only towards its western extremity; while *Embothrium* (comprehending for the present under this name all the many-seeded plants of the order), which is chiefly found on the east coast, and makes very little progress towards the west, advances to the utmost limit of south latitude, and there ascends to the summits of the highest mountains.

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Genera consisting of one or very few species, and which exhibit generally the most remarkable deviations from the usual structure of the order, are the most local, and are found either in the principal parallel, or in the highest latitude.

The range of species in the whole of the order seems to be very limited; and the few cases which may be considered as exceptions to this, occur in the most extensive genera, and in such of their species as are most strictly natives of the shores. Thus *Banksia integrifolia*, which grows more within the influence of the sea than any plant of the order, is probably also the most widely extended, at least in one direction, being found within the tropic, and in as high a latitude as 40°. It is remarkable, however, that with so considerable a range in latitude, its extension in longitude is comparatively small: and it is still more worthy of notice, that no species of this family has been found common to the eastern and western shores of New Holland.

The celebrated traveller Humboldt is the first who has expressly pointed out a remarkable difference in the distribution of the species of plants.

He observes that, while the greater number grow irregularly scattered and mixed with each other, there are some which form considerable masses, or even extensive tracts, to the nearly absolute exclusion of other species. Of plants growing thus in society, the greater number occur in the temperate zones; and of these, the most decided instances will readily present themselves to every botanist. I venture to add, that such as exist within the tropic, are found, either at considerable heights or on the sea-shores.

To this class very few of the *Proteaceæ* can be said to belong. *Protea argentea* of Linnæus is the most striking example among
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the African species; and my friend Mr. Ferdinand Bauer has observed a similar tendency in *Protea mellifera*.

Among the New Holland species, *Banksia speciosa* is the sole instance, and even that only in certain circumstances, of this manner of growth.

The favourite station of *Proteaceæ* is in dry stony exposed places, especially near the shores, where they occur also, though more rarely, in loose sand. Scarcely any of them require shelter, and none a good soil. A few are found in wet bogs, or even in shallow pools of fresh water; and one, the *Embothrium ferrugineum* of Cavanilles, grows, according to him, in salt marshes.

Respecting the height to which plants of this order ascend, a few facts are already known. The authors of the *Flora Peruviana* mention, in general terms, several species as being alpine; and Humboldt, in his valuable *Chart of Æquinoctial Botany*, has given the mean height of *Embothrium emarginatum* about 9300 feet, assigning it a range of only 300 feet. On the summits of the mountains of Van Diemen's Island, in about 43° south latitude, at the computed height of about 4000 feet, I have found species of *Embothrium*, as well as other genera hitherto observed in no other situation. *Embothrium*, however, as it is the most southern genus of any extent, so it is also, as might have been presumed, the most alpine of the family.

Two genera only of this order are found in more than one continent: *Rhopala*, the most northern genus, which, though chiefly occurring in America, is to be met with also in Cochinchina and in the Malay Archipelago; and *Embothrium*, the most southern genus of any extent, is common to New Holland and America.

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From this account of the geographical distribution of the *Proteaceæ*, I proceed to make some general remarks on the structure and modifications of their different parts. The order, which consists of shrubs of the most rigid nature, or of trees of moderate size, contains also one herbaceous plant, my *Symphionema paludosum*, which however, except in this respect and in the union of the tops of its filaments, does not remarkably differ from the usual structure of the family.

The pubescence, which is very general in the order, consists either of a short and in many cases nearly impalpable tomentum, or of soft hairs which are either spreading, close pressed, or somewhat crisped, generally simple, but in some genera fixed by the middle, and in a very few cases glandular.

The existence or absence of pubescence in the adult leaves cannot always be depended upon in distinguishing species; but the short tomentum, especially of their under surface, is of greater consequence than the spreading hairs. In the bractæ more reliance may be placed on it, and in the different parts of the flower I have never hesitated to employ it in my specific characters. In the calyx I have even derived the greatest advantage in some difficult genera, especially *Serruria*, from attending to its differences in direction.

Mr. Salisbury has introduced the pubescence of fruit into several of his generic characters, and in some I think with evident advantage, but in such only as where from its abundance and length it performs a function of manifest importance in assisting dissemination: hence I conceive it may be safely admitted into the characters of *Protea* and *Isopogon*; but I can perceive no advantage whatever in employing it in those of *Serruria* and *Spatalla*. For this reason too it ought not to be used in the capsular or drupaceous genera, in which indeed experience

proves it to be of no further moment than in distinguishing species.

Dr. Smith has given it as his opinion, that from the disposition of leaves in New Holland plants no conclusion can safely be drawn as to their genera. This remark however appears to me only applicable to certain families, or rather genera; for in many tribes the plants of that country are altogether as constant in their leaves as in any other part of the world. In proof of this, it may be sufficient to mention the order *Rubiaceæ*; and there are many others in which I find nothing at all remarkable in this respect.

As to *Proteaceæ*, it must be acknowledged that in *Banksia* both verticillated and scattered leaves occur; but the leaves constantly in threes in *Lambertia* seems to me a circumstance of even greater importance than the number of flowers in the involucre; and the opposite leaves of *Xylomelum* distinguish it at once both from *Rhopala* and *Hakea*.

Although the form and divisions of leaves in the order are variable in no common degree, yet there are certain genera, both among those of Africa and New Holland, which the leaves even in these respects assist in indicating. Thus, in that genus to which I have applied the name of *Protea* (the *Erodendrum* of Mr. Salisbury), and I believe also in my *Leucadendron*, there is no instance of a divided or toothed leaf; thus also the leaves of *Spatalla* are filiform and undivided, and those of *Serruria* filiform and almost always pinnatifid. Their dichotomous divisions in *Simsia* and *Franklandia* are still more characteristic; and their division and remarkable reticulation readily distinguish *Synaphea* from *Conospermum*.

The inflorescence in *Proteaceæ*, whatever use botanists may think proper to make of it in their generic characters, is of undoubted

doubted importance in determining genera, and even in the primary division of the order it appears to be of nearly equal consequence with the fruit itself; for, in dividing the order into two sections from the structure of the ovarium, it will be found that while all the single-seeded genera have each flower subtended by a proper bractea, or more rarely are without one, those with two or more seeds have, with very few exceptions, the flowers of their spikes or clusters disposed in pairs, each pair being furnished with only one bractea common to both flowers: it may also be observed that all the American and two thirds of the New Holland species have this mode of inflorescence, while only one instance of it occurs in Africa.

The single envelope of the stamina and pistillum in *Proteaceæ* I have, with Jussieu, denominated CALYX, chiefly because the stamina, of equal number with its lacinia, are constantly opposite to them, and from the close analogy subsisting between this family and that of *Thymeleæ*, in which I believe the greater number of botanists will allow that this envelope is really calyx: and as this latter argument may be considered as the stronger, I shall endeavour to establish the identity of this organ in these two families. In several of the *Thymeleæ*, especially in *Pimelea*, the lower part of the tube of the calyx is, as it were, jointed with the upper; after the falling off of which, it remains surrounding the fruit: this is also the case in several genera of *Proteaceæ*, as in *Adenanthos* of Labillardiere, in *Isopogon*, in *Grevillea* *Chrysodendron*, and still more remarkably in *Franklandia*, in which the persistent tube becomes indurated and even nearly woody, a change surely not likely to take place in a genuine corolla. But though I have thus adopted the language of Jussieu, I am decidedly of opinion that, in all families having a single en-

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velope, it will be still better to call it perianthium or perigonium; which latter term was proposed by Ehrhart, and is adopted by Decandolle.

A circumstance meriting the attention of the theoretical botanist, respecting the calyx in this order, is its invariable division into four leaves or segments; for the single exception noted by Linnæus in his description of the male flowers of *Brabejum*, he himself seems afterwards to have distrusted, from the manner in which he has introduced it into the amended generic character given in the Mantissa; and I may add, that in nearly 400 species of the order, which I have examined, I have not met with a single exception to this rule.

With this uncommon constancy in point of number, it is remarkable that there is, in the whole order, a strong tendency to irregularity in form, the various kinds of which are of great importance in characterizing genera.

Before the expansion of the calyx the margins of its segments are applied to each other; and from the unequal degrees of cohesion in many cases subsisting among them after expansion, several kinds of irregularity arise. I am not sure that any term has been contrived for this manner of æstivation, except it be the *æstivatio valvata* of Linnæus; but as he has not defined it, and as his commentator Reuss has given the very different æstivation of grasses as an example, I have, in introducing this circumstance into the general description of the order, specified it at length.

From the colour of the calyx, many genera of *Proteaceæ* are indicated with tolerable certainty. Thus *Synaphea* is distinguished from *Conospermum* by its yellow flowers; and no instance of yellow flowers has been met with in the numerous genera *Serruria* and *Spatalla*, nor any of purple in *Leucadendron*. In some genera

nera however, as in *Banksia* and *Isopogon*, it is evidently of very little importance.

The fleshy or scale-like bodies, which surround the ovarium in the greater number of plants of this family, are in many cases so manifestly secreting organs, that it is surprising Mr. Salisbury should hesitate in considering them as nectaria, and denominate them calli; a term which excludes the idea of secretion. But whatever their functions may be, great assistance may certainly be derived from their various modifications, in distinguishing genera. Their importance however in this respect, like that of all other parts, not only in this, but, as I apprehend, in every natural family, is very unequal, and in some cases seems to be entirely lost. Thus, in the genus *Leucadendron* as it is here constituted, they are wanting in several species, and in some I am inclined to think exist only in the males.

In most of the regular-flowered genera they are four in number, and alternate with the leaves or laciniae of the calyx. In these genera they are also generally in the form of succulent scales, distinct, or more rarely cohering at their base, and in a very few instances adhering to the calyx; but in *Persoonia* they are nearly round and fleshy, and in *Bellendena*, *Symphionema*, *Simsia*, *Agastachya*, *Petrophila*, and *Isopogon*, they are entirely wanting.

In the irregular-flowered genera with two or many seeds their number is less than four, in most cases only one exists, in a few others three, and in some none.

Varieties in the structure or apparent origin of the STAMINA, afford, as might be expected, important generic characters. Their usual insertion in the order is in the concave tops of the laciniae of the calyx; all considerable deviations from which may safely be employed in characterizing genera. In this way *Rhopala*,

pala, *Xylomelum*, and *Lambertia* are readily distinguished from *Embothrium*, *Grevillea*, and *Hakea*; and thus also *Persoonia* and *Brabejum* remarkably differ from *Gevuina*; while *Bellendena* differs from all others in having its stamina distinct from the calyx, affording however an indication of the real origin of these organs in the whole family.

The deviations from the usual structure of ANTHERÆ in this order are not many; but some of them are of so singular a nature as to constitute the essential characters of the genera in which they take place. These genera are *Simsia*, *Conospermum*, and *Synaphea*, all of which are most truly syngenesious; for not only do their antheræ firmly cohere together, but the corresponding lobes of these being, when considered separately, entirely open, are so applied to each other as to form but one cell, without a trace of any intermediate membrane. In *Simsia* the four antheræ are perfect, each consisting, as in the rest of the order, of two lobes, and therefore the whole before bursting constitute four cells. Whereas in *Conospermum* and *Synaphea* one filament is entirely barren, the two lateral ones have each a single-lobed anthera, and the fourth alone is perfect: hence before bursting the whole form only two cells.

This remarkable structure, which can only be ascertained before the opening of the calyx, necessarily escaped Dr. Smith in describing his *Conospermum*, for I conclude he had only the expanded flower before him, and the appearance of the antheræ in this state after their separation justifies him in referring the genus to Tetrandria: but according to the view now given of its structure, it can have no other pretension to a place in this class than its belonging to Proteaceæ; and the order Syngenesia Monogamia being abolished, it must be referred to Triandria.

The only remaining anomaly in these parts occurs in *Franklandia*,

landia, and consists in the anthera, or rather that portion of the filament on which it is fixed, adhering to the calyx through its whole length.

The figure of the POLLEN has been attended to by a few theoretical, but by hardly any practical botanists; yet I am inclined to think, not only from its consideration in this family, but in many others, that it may be consulted with advantage in fixing our notions of the limits of genera: and though its minuteness may perhaps always exclude it from a place in generic characters, yet it well deserves, to use the words of Linnæus when speaking of habit, to be "occulte consulendus."

Its usual figure in the order is triangular with secreting angles, a beautiful contrivance for insuring impregnation in a tribe, in which, from the very scanty, or in many cases apparent want of secretion by the stigma, it must otherwise have been very uncertain; for by this form and secretion, as well as by the singular æconomy of the calyx, it remains so long in contact with the stigma, as probably to compensate for the somewhat defective structure of that organ.

From this figure the principal deviation is in the extensive genera *Banksia* and *Josephia*, in all of which it is elliptical or oblong, and either straight or bent into a semilunar form; and in *Franklandia* and *Aulax*, where it is spherical. The only remaining exception with which I am acquainted is the original *Embothrium* of Forster, his *E. coccineum*, in which, as in *Banksia*, it is oblong; a circumstance that, together with the more important character of a regular club-shaped stigma, and some other differences, has determined me to separate it from all the other species of *Embothrium*, except *E. lanceolatum* of Flora Peruviana, whose pollen however remains to be examined.

The external modifications of the OVARIUM must be very cautiously

cautiously used in the generic characters of this family; even its being sessile or pedicellated is not always of sufficient importance, though I think Mr. Salisbury has done well in introducing it into his characters of *Serruria* and *Spatalla*, in both which genera I had overlooked it before the publication of his Essay.

Its internal structure, which ought always to be ascertained, will be found of the greatest importance in most cases, but fails in *Persoonia*, the species of which differ in having one or two seeds: it would seem however, in this case, that an irregularity in a point of such importance could not take place unaccompanied with other anomalies in the same organ, and accordingly such are found to exist in this genus, and will be mentioned when treating of the fruit.

Besides number, the insertion of the ovula is also to be attended to; for though this may generally be presumed from the situation of the radicula in the ripe seed, yet to this criterion there are several exceptions, even in the present order: thus, while the radicula constantly points downward in the whole of the order, the insertion of the ovulum is in many cases at the top or side of the cell of the ovarium. My observations on this subject are as yet incomplete; but, from those that I have made, I am inclined to think such differences will be connected with genera, or rather perhaps with particular kinds of fruit. Thus I conjecture, in *Leucospermum*, *Mimetes*, *Nivenia*, and *Spatalla*, the insertion to be uniformly lateral.

The *STYLE*, though not subject to much variety in this family, will be found in a few cases to furnish generic characters. Thus in *Protea*, strictly so called, the persistent subulate style forms an important part of its character: and the persistency of the whole of the style in the greater number of species of *Grevillea* will probably be used by future botanists in distinguishing them

them from that remarkable section of the genus, which I have at present united with them and called *Cyclopteræ*. Its length also, when compared with that of the calyx, seems in some cases to be of importance, as in distinguishing *Adenanthos* from *Spatalla*; but in general this circumstance can hardly be had recourse to except in specific characters.

The form of the STIGMA is in many cases of considerable importance in characterizing genera, a fact which could not escape the penetration of Dr. Smith when establishing his new genera of this order: thus its conical papilla in his *Conchium* (the *Hakea* of Schrader) will in many, though certainly not in all cases, distinguish it from *Grevillea*: but its form in both these genera will readily serve to separate them from *Xylomelum* and *Rhopala*; and thus also *Spatalla* remarkably differs from *Adenanthos*. Upon the whole, however, it seems that its obliquity is of greater importance than its form; for this, when existing in any great degree, is generally accompanied with a corresponding irregularity in the calyx: but as this irregularity is produced for the purpose of bringing all the antheræ into contact with the stigma, so its obliquity in the dioicous genera *Leucadendron* and *Aulax* is not attended with so great a degree of irregularity, which would here serve no end, impregnation depending on the pollen of different individuals, to insure which the surface of the stigma in these genera is rough with papulæ; a circumstance that, together with its form, readily distinguishes them from all others of the order.

In *Synaphea*, the stigma or summit of the style inosculates with the divisions of the barren filament, which in some species appear beyond it in horn-like processes, but in others are entirely lost in its substance. I am acquainted with nothing like this in the whole vegetable kingdom; and such a singularity

alone, when occurring in several species, would have determined me to separate these plants from *Conospermum*: but being also accompanied by other remarkable differences, both of structure and appearance, no genus, I apprehend, can be better founded than this.

That the opinion of Christian Knaut and Vaillant respecting the non-existence of naked seeds is correct when anatomically considered, there can be no doubt; but the practical utility of deviating in this subject from the common language of botanists may still be questioned: and accordingly Gærtner, who was fully aware of the truth of their position, has nevertheless continued to describe the seeds of many plants as naked. I confess however I am inclined to adopt the opposite decision of the French botanists, at the head of whom is Richard, who has also proposed terms for distinguishing the various species hitherto confounded under the name of naked seeds. The fruit of the monospermous genera of *Proteaceæ* might probably be with advantage referred to that which he has termed *Ahena*; but as I am unwilling in the present paper to adopt any term not more generally sanctioned and understood than this, I shall content myself with calling those *nuces*, which are either not at all or but slightly compressed and not bordered; and apply the term *samara* to such as are either very much compressed, or with a less remarkable compression are surrounded or terminated by a membranaceous border: that I regard these distinctions however as in some cases of very little importance, may be inferred from this, that my genus *Leucadendron* includes both these kinds of fruit.

The first observation I have to offer on the fruits of *Proteaceæ* is, that there is no really bivalvular capsule in the order; a truth which was not perceived by Gærtner in describing his

Banksia

Banksia dactyloides (the *Conchium dactyloides* of Dr. Smith), and which has equally escaped Cavanilles and Labillardiere in their characters of *Hakea*. Dr. Smith has more cautiously omitted this consideration in his character of that genus, and Professor Schrader has accurately described the suture as only existing on one side: such fruits then are as truly folliculi as those of *Grevillea*, *Rhopala*, or *Embothrium*; and that the existence of a distinct placenta is by no means necessary to constitute this kind of fruit, is proved even by some genera of *Apocineæ*, to which family this term was first applied.

A circumstance occurs in some species of *Persoonia* to which I have met with nothing similar in any other plant: the ovarium in this genus, whether it contain one or two ovula, has never more than one cell; but in several of the two-seeded species a cellular substance is after fœcundation interposed between the ovula; and this gradually indurating acquires in the ripe fruit the same consistence as the putamen itself, from whose substance it cannot be distinguished; and thus a fruit originally of one cell becomes bilocular: the cells however are not parallel, as in all those cases where they exist in the unimpregnated ovarium, but diverge more or less upwards.

In all the seeds of this order there is a very manifest CHALAZA, which, whatever may be the point of insertion of the seed, is always situated at its upper extremity; and I have not been able to observe any fasciculus of vessels connecting it with the umbilicus in cases where this latter is placed in a different part of the seed.

I am not aware of any function being ascribed to the CHALAZA of seeds, except the nutrition of their proper membrane: but it appears to me too remarkable a part to be destined for this purpose only; and some observations I have made induce

me to suppose that it is the organ secreting the liquor amnios. This opinion I was first led to form by observing in some species of *Persoonia*, in which the inspissated remains of this fluid are visible in the ripe fruit, that it evidently originated in the *chalaza* and continued to adhere to it: nothing has hitherto occurred to invalidate this opinion, which is here however hazarded merely as a conjecture, requiring for its confirmation more numerous and decisive facts than I can at present adduce.

That the ALBUMEN of seeds is merely that condensed portion of the liquor amnios which remains unabsorbed by the embryo, seems to me very satisfactorily established; and as this fluid is in the early stage never wanting, all seeds may in one sense be said to have albumen: but while in some tribes this unabsorbed part in the ripe seed many times exceeds the size of the embryo, so there are others in which not a vestige of it remains; and such has hitherto been supposed to be the case with *Proteaceæ*: nor are the few exceptions with which I am at present acquainted of so decisive a nature as to invalidate this character of the order; for they occur only in some species of *Persoonia*, where the semi-fluid remains of this substance are observable between the cotyledons; and in *Bellendena*, in which it continues to form a thin fleshy coat on the inner surface of the proper membrane of the seed. From such instances however we may expect to find plants with a more copious albumen, which nevertheless it may be necessary from the whole of their organization to refer to this family.

The RADICULA pointing towards the base of the fruit in all *Proteaceæ* is a circumstance of the greatest importance in distinguishing the order from the most nearly related tribes; and its constancy is more remarkable, as it is not accompanied by the usual position or even uniformity in the situation of the external umbilicus.

If

If Gærtner had not described the PLUMULA of *Protea argentea*, I should not have hesitated to assert that it was inconspicuous in the whole order.

The number of COTYLEDONS when more than two is a circumstance of little importance. In *Persoonia*, the only genus of the order in which a plurality of cotyledons has been observed, I am not even certain that their number is constant in those species in which this anomaly occurs.

In the following part of this essay it may be observed, that the genera into which I have subdivided the great African family *Protea*, are in most cases similar to those already proposed by Mr. Salisbury in the *Paradisus Londinensis*: from that essay however they are certainly not derived, but before its publication were formed and submitted to the judgment of Mr. Dryander, at whose suggestion they are now offered to the Society. That the results of an examination conducted by two observers wholly independent of each other, are so similar, will probably be considered as some proof of their correctness.

As Mr. Salisbury's generic names have the unquestionable right of priority of publication, I have in most cases adopted them, though I wish some of them had been differently constructed. But as I cannot accede to his application of the Linnæan names *Protea* and *Leucadendron*, I shall here, that I may not disturb the following arrangement, assign my reasons for differing from him in this respect; and as in so doing I am obliged to trace the progress of Linnæus's knowledge of the family, I persuade myself that this will in some degree compensate for the otherwise unwarrantable length of the discussion.

The name PROTEA, which originated with Linnæus, first occurs in the folio edition of his *Systema Naturæ* published in
1735;

1735; no generic characters are there given, but from the references to Boerhaave's figures it is evident that the genus is to be understood in the same extensive sense which he at length gave it in the second Mantissa. In 1737 appeared the *Genera Plantarum*, and in it for the first time the natural generic character of *Protea*: as in this work he only cites *Lepidocarpodendron* and *Hypophyllocarpodendron* of Boerhaave, it follows that here the genus is more limited, though its character is not peculiarly applicable to either of Boerhaave's genera referred to; and the description of antheræ and germen is not reconcilable to any plant whatever of the family. In the same year *Hortus Cliffortianus* was published, in which he resumes his first opinion of *Protea*, reducing to it all Boerhaave's genera, but referring to the character given in his own *Genera Plantarum*. It does not appear on what ground this change of opinion was formed; for in Clifford's garden, according to *Viridarium Cliffortianum*, there had only been two species, *Protea argentea* and *saligna*, neither of which had flowered, and the former was already lost; while in his Herbarium, now in the collection of Sir Joseph Banks, the specimens of all the three species given in the body of the work are without fructification, and of *Protea racemosa* added in the appendix there is no specimen whatever.

If Linnæus is to be considered in a great degree the author of the *Prodromus Floræ Leydensis*, published by A. Van Royen in 1740, as has been asserted by some of his pupils, and may be inferred from a passage in his Diary published by Dr. Maton, it must be noticed as his next work in the order of time; for from the same Diary it appears that he could only have been employed in its composition in 1738. In this work the genus *Protea* is given in the same extensive sense as in *Hortus Cliffortianus*, and no fewer than 21 species are characterized, of which
however

however only two were in the Leyden garden, the rest being described from specimens in Van Royen's Herbarium.

In 1738 he also published his *Classes Plantarum*, in which, notwithstanding he appears to have composed it while engaged in the arrangement of Van Royen's collection, another fluctuation of opinion occurs, *Protea* being limited as in the first edition of the *Genera Plantarum*, and to *Leucadendros*, which here for the first time occurs, he refers the *Conocarpodendron* of Boerhaave.

In 1740 he published the second edition of *Systema Naturæ*, where the names *Protea* and *Leucadendron* are both given; but the references to Boerhaave are reversed, *Protea* being confined to his *Conocarpodendron*, and *Leucadendron* comprehending his other two genera. In this sense they also appear in the second edition of the *Genera Plantarum* published in 1742, in which the character of *Leucadendron* is first given, some of whose species he must, from the annexed asterisk, have seen recent: his description of corolla and pistillum is only applicable to *Lepidocarpodendron*.

In 1745 Linnæus received the Herbarium of Herman, from which he composed his *Flora Zeylanica*: the fourth volume of this collection containing a mixture of Ceylon and African plants, the latter are not noticed in this work; but from an inspection of the Herbarium itself, now in the Banksian collection, it appears that he had added generic names to most of them: of *Proteæ* only three species exist in the volume, of which *Protea conocarpa* is one: of this there are on the same page two specimens, whose heads of flowers are separately pasted; under one of these specimens he has written *Leucadendron*, and under the second *Protea*; to a specimen of *Protea Serraria* on a different
page

page he has given the name of Santolina. These facts are mentioned to prove, that at this period his knowledge of the family must have been chiefly derived from Boerhaave's figures, and perhaps from specimens which he had casually seen.

In 1748 the sixth edition of *Systema Naturæ* appeared, where the essential characters of *Protea* and *Leucadendron* first occur, both of them evidently derived from the natural characters previously given.

In 1753 the *Species Plantarum*, the most accurate of all his works, was given to the world; both genera are found in it, their species characterized, and trivial names for the first time applied to them: of *Protea* there are only two species, *P. argentea* and *fusca*; to the former however he referred as varieties *P. saligna*, *conifera*, and three others; to the whole adding the following observation, which may be supposed to contain his chief reason for applying his name *Protea* to this genus rather than to that for which in his *Classes Plantarum* he had first intended it. "Planta naturalis in patria argentea excellit fronde inter arbores nitidissima omnium; at culta et captiva extra patriam exuit decus; variat dein etiam domi mille modis verè *Protea*."

At this time he had in his Herbarium a specimen without fructification of *Protea argentea* properly so called; but of its supposed varieties or of *P. fusca* none whatever. Of his genus *Leucadendron* he had only one species, *L. proteoides*, afterwards called *Protea purpurea*, a plant differing in many respects from the tribe to which he had, though not without hesitation, referred it.

In 1754 the fifth edition of *Genera Plantarum* appeared, in which the characters of both genera remain exactly as in the second.

In 1759 was published the tenth edition of *Systema Naturæ*,
where

where the essential generic characters are nearly the same as in the sixth, and the specific characters are copied from the *Species Plantarum*.

Of this latter work the second edition appeared in 1762: it contains two additional species of *Leucadendron* described from Burmannus's Collection and *Plantæ Africanæ*: *Protea argentea* of the first edition is here divided into two species; the first *Protea argentea* now so called, the second comprehending *P. saligna*, *conifera*, and three other nearly related species: to this latter the greater part of the observation added to *P. argentea* of the first edition is annexed, though evidently less applicable to the species thus divided.

In the sixth edition of *Genera Plantarum* printed in 1764 no alterations are made in the characters of these two genera.

In *Mantissa prima* published in 1767, two new species of *Leucadendron* are described: neither of these, however, he had in his Herbarium: the first, *Leucadendron speciosum*, he had probably accidentally seen, the antheræ of which are described as filaments, and their callous apices alone as true antheræ: the description of the second, *L. pinifolium*, is by Van Royen.

In the twelfth edition of *Systema Naturæ* published in the same year, the species of *Leucadendron* are arranged in a different, and, as the author intended, a more natural order; from which it may be concluded that at this time considerable additions had been made to his Herbarium: but *L. glomeratum* is unaccountably omitted. *Protea* here receives again *P. Levisanus*, the *P. fusca* of the first edition of the *Species Plantarum*, which in the second had been referred to *Brunia*.

In *Mantissa altera* published in 1771, the two genera are united under the name of *Protea*; new characters are given to

the species, and most of them are described from specimens then in his Herbarium; five species are added which had already been published by the accurate Bergius; and three, *P. totta*, *strobilina* and *parviflora*, are here first met with: in his description of the last, he seems to suspect it to be a male plant, which we now certainly know to be the case. *P. glomerata* is here again taken up; but *Protea acaulis*, *cancellata* and *conocarpa* are omitted; and *Protea conifera* of the second edition of the Species Plantarum is subdivided into three species, *P. conifera*, *pallens* and *saligna*.

In the thirteenth edition of the Systema Vegetabilium published in 1774, the essential character of the genus is adapted to its present state, and no alteration occurs among the species, except that *P. speciosa* is considered as a variety of *P. Lepidocarpodendron*.

From this statement it appears, that Linnæus in his earlier works had not sufficient materials for obtaining an accurate notion of this family; and hence that perpetual fluctuation of opinion concerning it, which has been now pointed out, and may in few words be recapitulated.

1st, He gave the genus *Protea* the same extent which he at length assigned to it in the Mantissa.

2dly, He limited it, leaving unnoticed that part to which at a latter period he exclusively applied the name.

3dly, He resumed his first opinion.

4thly, He subdivided it into two genera, giving them the same names which are adopted in the present paper.

5thly, He continued the subdivision but reversed the names, and for a reason, as it would seem, which is now known to be founded in error.

And

And lastly, Having acquired more perfect materials and perceiving the insufficiency of his characters, he united them together, thus ending exactly where he commenced.

But, as in this he has been universally followed for nearly forty years, *Protea* can no longer be considered as more strongly associated with any one species of the genus than another; and therefore this name so familiar to botanists, if the necessity of again subdividing the genus be allowed, ought certainly to be given to that part which is best known, and which contains the greatest number of published species, especially if the name be at least as applicable to this as to any other subdivision: now this part unquestionably is the *Lepidocarpodendron* of Boerhaave, the *Protea* of the first edition of the *Genera Plantarum* and *Classes Plantarum*, and of the present Essay.

The question respecting the application of the name *Leucadendron* is reducible to a smaller compass. Mr. Salisbury is aware that the Linnæan character of the genus is only applicable to *Lepidocarpodendron* of Boerhaave; and therefore, consistently with the reasons which determined him in his application of the name *Protea*, *Leucadendron* ought to have been retained for that which he has called *Erodendrum* in *Paradisus Londinensis*; and this it seems he would have done, had it not been differently used by Plukenet, whom he professes to follow in this respect. But as rejecting Linnæan names when accompanied by characters, for those of Plukenet who never published a single character, is somewhat unusual; it must be supposed to have arisen from the latter author's more appropriate use of this significant name, while it may also be presumed that Linnæus's application of it is wholly unsuitable; and it is at least to be expected that in his own application he is consistent with Plukenet, whom he means to follow.

To determine how far this is the case, I have examined the figures published by Plukenet under the name of *Leucadendros*, and also his Herbarium, which forms part of the Sloanean collection in the British Museum. Of his three species so named the first is *Protea argentea*, his "*Leucadendros africana arbor tota argentea sericea foliis integris, Atlas Tree, D. Herman.*" of which the figure represents a branch without fructification, and a separate fruit possibly of the same plant, but rather, as I suspect, belonging to a different species of the same genus.

On the same plate is figured a single leaf, in all probability belonging to *P. conocarpa*, with the following name, "*Leucadendro similis africana arbor argentea folio summo crenaturis florida, an Leucadendros africana foliis serratis D. Herman.?*" The separate fruit accompanying this probably does not belong to it, but to some species of that division of *Leucadendron* which Mr. Salisbury has called *Euryspermum*.

The third species, his "*Leucadendros africana, seu Scolymcephalus angustiori folio apicibus tridentatis,*" is a good figure of a flowering branch of *Protea cucullata*.

It could not certainly from his publications alone be understood why the name *Leucadendros* is applied to these three plants so little alike, while different names are given to species much more nearly related to some of them than they are to each other: of this however the solution is to be found in his Herbarium; on consulting which I find, that after the publication of *Protea argentea*, with whose flowers he was unacquainted, he had acquired flowering specimens of *Protea hirta*, and had supposed these two species to be the same, pasting between two leaves of *argentea* four loose heads of *hirta*, and under the whole copying in his own hand the name *Leucadendros*, &c. at full length from his *Phytographia*. This satisfactorily explains why he referred

P. cucullata

P. cucullata to *Leucadendros*, its flowers being very similar to those of *Protea hirta*. As to his application of this name to *P. conocarpa*, it could only proceed from his total ignorance of its fructification; for, as he has figured a nearly related species, *P. hypophylla*, under the very different name of *Thymelea*, &c., it is reasonable to conclude, that had he seen the flower of *P. conocarpa* he would have given it the same generic name. This *P. conocarpa* however, of which it may truly be said he knew nothing, and concerning which at least no information is to be derived from his works, is the only species of the three which belongs to Mr. Salisbury's genus *Leucadendron*.

But the original *Leucadendros* of Herman, of Plukenet, and of Linnæus himself, is *Protea argentea*, the only plant of the family to which the name can properly be applied; to this therefore I have assigned it in the following arrangement.

Before proceeding to this arrangement, I am happy in having an opportunity of acknowledging that assistance which has so liberally been afforded me.

To the invaluable Herbarium and Library of Sir Joseph Banks I have on this, as on all other occasions, enjoyed the freest access; an advantage which has been greatly enhanced by the opportunity it has given me of consulting my friend Mr. Dryander, both as to the formation of genera and respecting synonyms, on which points his sound judgment and unrivalled erudition so well enable him to decide.

To Dr. Smith I am indebted for the permission of inspecting the Linnæan Collection, and for the most friendly and satisfactory answers to the queries on this subject which he allowed me to put to him.

Mr. Lambert, whose Herbarium in this tribe is only surpassed
by

by that of Sir Joseph Banks, has, with his accustomed liberality, submitted it without reserve to my examination.

Mr. Hibbert, who for many years possessed the most extensive collection of living *Proteas* that has ever been formed, and who also received from his intelligent collector Mr. Niven a valuable Herbarium of native specimens, most obligingly permitted me to examine these, and even to dissect such as were new. For the like privilege I am indebted to the friendship of Mr. Aiton of Kew, who sent me his whole collection, peculiarly valuable as containing many of the original specimens of Mr. Masson: and lastly, I have to acknowledge the great assistance I have derived from the extensive collection presented to this Society by my friend Dr. Roxburgh, who during his short residence at the Cape appears to have paid particular attention to this tribe of plants, and who, besides the many new species discovered by him, has given a greater value to his Herbarium by numerous observations on the sexes, the size, and places of growth, which I have every where inserted on his authority.

PROTEACEÆ.

DIAGNOSIS.

Calyx tetraphyllus v. quadrifidus, æstivatione valvatâ.

Corolla nulla.

Stamina quatuor, (altero nunc sterili,) laciniis calycis opposita.

Ovarium unicum, liberum. *Stylus* simplex.

Stigma subindivisum.

Semen (pericarpium varii) exalbuminosum.

Embryo dicotyledoneus, (raro polycotyledoneus,) rectus. *Radicula* infera.

DESCRIPTIO.

DESCRIPTIO.

Frutices v. *Arbores* vix excelsæ; rarissimè *Herbæ*.

Rami in plerisque annotino-umbellati.

Folia sparsa, nunc verticillata v. opposita, persistentia, exstipulata, indivisa v. variè dentata, seu incisa profundiusve lacinata, rarissimè verè composita.

Inflorescentia subspicata, modò laxius, in racemum v. corymbum floribus sæpè geminatis, nunc densius congesta in capitulum, vel aggregata supra receptaculum planiusculum, involuero persistenti, sæpiùs imbricato, subtensum: in quibusdam quasi abortione, uniflorum, indicante involuero calyculum tunc æmulante. *Bractæ* dum flores geminati singulis paribus communes; in capitatis persistentes, sæpiùsque auctæ et induratae, rarò connatae; in aggregatis nanæ, plerumque deciduæ, quandoque nullæ.

Flores in plerisque hermaphroditi perfecti, nunc organorum vitio diclines.

Calyx tetraphyllus, foliolis distinctis v. sæpiùs plùs minùs arcè cohærentibus tubulosus; *limbo* quadrifido, æquali, laciniis subspathulatis; nunc irregulari sive ex earum cohæsione rariùsve inæqualitate: coloratus, subcoriaceus, aveniens, extùs sæpè pubescens, intùs glaber rariùsve barbâ ut plurimùm partiali instructus, valvatim aperiens, ante expansionem marginibus subtruncatis mutuò cohærentibus: deciduus v. marcescens, dum tubulosus sæpiùs a basi tandem quadrifidâ abscedens, quandoque basi integrâ diutiùs persistente.

Corolla nulla.

Stamina quatuor, (altero nunc sterili,) foliolis calycis opposita, iisdemque sæpissimè inserta, in plerisque juxta apicem, quandoque prope medium v. basin; rarò hypogyna; calycem nunquam superantia.

Fila-

Filamenta brevissima v. mediocria, rarissimè partim cohærentia.

Antheræ adnatæ, biloculares, lineares, loculis per axin longitudinaliter dehiscentibus; rarò bipartitæ lobis respondentibus vicinarum connatis loculumque unicum tandem bivalvem efformantibus, altero lobo in quibusdam deficiente.

Pollen triangulare, angulis subsecernentibus, quandoque ellipticum v. lunatum, rarò sphæricum.

Squamule Glandulæ hypogynæ v. quatuor foliolis calycis alternantes, distinctæ seu connatæ; v. pauciores et intus secundæ, interdum nullæ, rarissimè staminuliformes.

Ovarium unicum, liberum, sæpè pedicellatum, pedicello rarissimè articulato, mono-di-poly-spermum quandoque biloculare: ovulis apice, basi v. latere ovarii affixis.

Stylus simplex, terminalis.

Stigma in plerisque indivisum, modò emarginatum rariùsve bifidum; sæpè obliquum, figurâ varium, plerumque glabrum, quandoque papulosum, hispidulum v. tomentosum.

Pericarpium, Nux, Samara v. *Drupa* monosperma rarò disperma, vel *Folliculus* coriaceus seu ligneus, di-poly-spermus basi, marginibusve suturæ seminifer; rarò bilocularis, dissepimento libero parallelo bipartibili!

Semen sessile, ventricosum, v. sæpiùs compressum, in folliculatis sæpè alatum; exalbuminosum, apice *Chalazá* venosâ insignitum, *Rhaphi* nullâ.

Embryo dicotyledoneus, rarò polycotyledoneus, rectus, albus.

Radicula infera, brevis.

Plumula vix conspicua.

P R O T E A C E Æ.

I. FRUCTUS CLAUSUS.

A. ANTHERÆ DISTINCTÆ.

a. ANTHERÆ A CALYCE LIBERÆ.

- † *Flores dioici*, (organis imperfectis.) *Stigma* femineorum obliquum, emarginatum, papulosum. pag.
 1. *Nux* exserta, (barbata:) *squamis* capuli feminei subulatis. *Masculi flores* racemosi AULAX (49)
 2. *Nux* v. *Samara* *squamis* dilatatis strobili inclusa. *Masculi flores* capitati LEUCADENDRON (50)
- †† *Flores hermaphroditi*, raro polygami dioici, *stigma* tunc verticali.

a. *Antheræ* apicibus concavis calycis immerse.

§ *Ovarium monospermum*. *Nux* subcrustacea v. *Samara*.

a. *Squamulæ* Glandulæ nullæ hypogynæ.

1. *Nux* lenticularis, hinc barbata v. *Samara* glabra. *Calyx* totus simul deciduus PETROPHILA (67)
 2. *Nux* ventricosa, undique equaliter barbata. *Calyx* tubo gracili diutius persistenti ISOPOGON (71)

b. *Squamulæ* v. Glandulæ quatuor hypogynæ.

|| *Calyx* irregularis, labiatus, lacinii tribus (raro omnibus) cohærentibus.

1. *Calyx* bipartibilis. Labii majoris laminæ staminiferæ cohærentes. *Stylus* persistens, subulatus PROTEA (74)
 2. *Calyx* tubulosus. Laminæ staminiferæ distinctæ. *Stylus* deciduus, filiformis LEUCOSPERMUM (95)

||| *Calyx* lacinii quatuor distinctis (sepius æquidistantibus).

a. *Capitulum* indefinite multiflorum, subpaleaceum. *Involucrum* dum adsit imbricatum.

1. *Nux* brevissime pedicellata. *Paleæ* persistentes. *Receptaculum* convexum SERRURIA (112)
 2. *Nux* sessilis. *Paleæ* deciduæ, angustissimæ v. nullæ. *Receptaculum* planum MIMETES (105)

β. *Involucrum* uniflorum v. definite pauciflorum. *Paleæ* nullæ.

† *Squamulæ* hypogynæ a calyce toto deciduo liberæ.

* *Stigma* verticale. *Calyx* regularis.

1. *Nux* sessilis, nitens, basi integrâ. *Involucrum* fructiferum induratum, 4-ph., 4-flor. NIVENIA (133)
 2. *Nux* pedicellata v. basi emarginata. *Involucrum* fructiferum non mutatum SOROCEPHALUS (139)

** *Stigma* obliquum, dilatatum. *Calycis* lacinia quartâ sæpè majore SPATALLA (143)

†† *Squamulæ* hypogynæ infra adnatæ basi persistenti calycis ADENANTHOS (151)

§ § *Ovarium dispersum*. *Drupa* baccata, putamine osseo. *Stigma* obliquum, dilatatum. *Calyx* irregularis GUEVINA (165)

β. *Antheræ* exsertæ. *Stamina* medio v. basi calycis inserta v. hypogyna.

† *Glandulæ* hypogynæ distinctæ s. connatæ. v. *Stamina* quatuor sterilia. *Drupa* putamine osseo.

* *Drupa* exsucca, tomentosa. *Filamenta* basi calycis inserta. *Vaginula* hypogyna. *Flores* polygami BRABEUM (164)

** *Drupa* baccata. *Flores* hermaphroditi.

1. *Glandulæ* hypogynæ carnosæ. *Stamina* medio calycis supra recurvi inserta. *Ovarium* pedicellatum PERSONIA (159)
 2. *Glandulæ* hypogynæ staminuliformes. *Stamina* basi calycis supra angustati inserta. *Ovarium* sessile CENARRHINES (158)

†† *Glandulæ* nullæ hypogynæ.

§ *Stamina* calyci inserta.

1. *Filamenta* distincta. *Stigma* unilaterale. *Ovarium* monospermum, trigonum (imberbe) AGASTACHYS (156)
 2. *Filamenta* apice cohærentia. *Stigma* subtruncatum. *Ovarium* dispersum, teres SYMPHIONEMA (157)

§ § *Stamina* receptaculo inserta. *Samara* aptera, 1-2-sperma. *Stigma* simplex BELLENDENA (166)

b. ANTHERÆ ADNATÆ TUBO CALYCIS HYPOCRATERIFORMIS ! *Nux* fusiformis, pedicellata; apice dilatato papposo FRANKLANDIA (157)

B. ANTHERÆ COHÆRENTES, vicinarum lobis proximis loculum unicum constituentibus ! tandem distinctæ. SIMSIA (152)

a. *Calyx* regularis. *Antheræ* exsertæ, omnes bilobæ CONOSPERMUM (153)

β. *Calyx* ringens. *Antheræ* inclusæ, laterales dimidiatæ; *Stamine* quarto sterili.

1. *Stigma* liberum. *Anthera* labii superioris biloba SYNAPHAEA (155)
 2. *Stigma* filamento sterili cohærens. *Anthera* media labii inferioris biloba

II. FRUCTUS

II. FRUCTUS DEHISCENS.

A. UNILOCLARIS.

a. OVARIUM DISPERSUM. *Fructus* quandoque monospermus.

† *Antheræ* apicibus concavis calycis immersæ. *Glandula* hypogyna unica dimidiata, v. nulla.

pag.

* *Glandula* nulla hypogyna. *Stigma* conicum. *Semen* apterum.....ANADENIA.....(166)

** *Glandula* hypogyna dimidiata, quandoque lobata.

1. *Folliculus* (coriaceus v. ligneus) loculo centrali. *Semina* alâ apicis dum adsit nucleo breviora.....GREVILLEA.....(167)

2. *Folliculus* incrassato-ligneus, loculo excentrico. *Semina* alâ apicis nucleo longiora.....HAKEA.....(178)

†† *Antheræ* exsertæ, apicibus calycis revolutis. *Glandulæ* hypogynæ quatuor, distinctæ v. connatæ.

† *Involucrum* coloratum, deciduum, uni-multiflorum, receptaculo plano. *Semina* marginata. *Stigma* subulatum.....LAMBERTIA.....(187)

†† *Involucrum* nullum. *Flores* spicati.

α. *Semina* apice (solum) alata.

1. *Folliculus* incrassato-ligneus, loculo excentrico. *Stigma* clavatum. *Flores* polygami.....XYLOMELUM.....(189)

2. *Folliculus* coriaceus, loculo centrali. *Stigma* subcylindraceum.....ORITES.....(189)

β. *Semina* utrinque alata, marginata. *Stigma* clavatum. *Folliculus* ligneo-coriaceus.....RHOPALA.....(190)

b. OVARIUM TETRASPERMUM! *Calyx* regularis. *Antheræ* exsertæ. *Semina* apice alata. *Glandulæ* quatuor hypogynæ.....KNIGHTIA.....(193)

c. OVARIUM POLYSPERMUM. *Calyx* irregularis, apicibus concavis staminiferis.

§ *Semina* apice alata.

* *Stigma* verticale, clavatum. *Glandula* hypogyna unica, semiannularis.....EMBOTHRIUM.....(195)

** *Stigma* obliquum, unilaterale.

1. *Glandula* nulla hypogyna. *Stigma* dilatatum, concavum. *Involucrum* (racemi) nullum.....OREOCALLIS.....(196)

2. *Glandula* unica hypogyna, subannularis. *Stigma* clavatum, convexum. *Involucrum* (racemi) deciduum.....TELOPEA.....(197)

3. *Glandulæ* tres hypogynæ, secundæ. *Stigma* dilatatum, concavum. *Calycis* foliola distincta.....LOMATIA.....(199)

§§ *Semina* basi alata! *Glandula* hypogyna unica dimidiata. *Stigma* dilatatum, concavum.....STENOCARPUS.....(201)

B. BILOCULARIS, dissepimento libero, bifido.

1. *Amentum* paribus flosculorum tribracteatis.....BANKSIA.....(202)

2. *Receptaculum* commune plenum; involucri imbricato; flosculis indeterminatim confertis, paleis solitariis v. nullis.....DRYANDRA.....(211)

1. AULAX.

Berg. Cap. 33. Salisb. Parad. 67.

CHAR. GEN. Flores dioici, organis imperfectis.

Masc. racemosi: *Calyx* tetraphyllus foliolis medio staminiferis.

Fem. *Stigma* obliquum, clavatum, hispidulum, emarginatum.

Nux exserta, ventricosa, barbata, squamis capituli subulatis.

HABITUS. Frutices *glaberrimi*. Folia *integerrima*. Flores *terminales, unibracteati*. Masculi in racemis aggregatis, nudis. Feminei in capitulo solitario, cincto foliolis intus auctis appendiculo aceroso-multifido, capitulo quasi abortivo racemis exterioribus maris analogo, (interdum florifero, fide Cel. Salisburii.)

1. *A. pinifolia*, foliis filiformibus canaliculatis.

Masc. Pini foliis planta Africana Cyperi capitulis. *Herm. Afr.*

18. *Burm. Afr.* 193. t. 70. f. 3.

Pini folio planta Capensis floribus spicatis. *Raj. Hist.* 3. App. p. 247. n. 47.

Pini facie frutex africanus, Cyperi capitulis umbellatis.

Sher. in Raj. Hist. 3. *Dendr.* p. 130.

Aulax pinifolia. Berg. Cap. 33.*

Leucadendron pinifolium. D. Van Royen in Linn. *Mant.*

36.* *Syst. Nat. ed.* xii. t. 2. p. 110.

Protea pinifolia. Linn. *Mant.* 187. (sed specimen maris

A. umbellatæ habebat in Herb.) *Syst. Nat. ed.* xiii. t. 2.

p. 117. Thunb. *Diss.* n. 20.* *Prod.* 26. Willd. *Sp. Pl.* 1.

p. 515. Lam. *Illust. Gen.* 1. p. 237. n. 1244. And. *Repos.*

76. bona. Poiret. *Encyc. Botan.* 5. p. 651.

FEM. *Scolymocephalus africanus* foliis Rorismarini acutis.

Herm. Afr. 20. *Raj. Hist.* 3. *Dendr.* p. 10.

Conophorus capensis pini folio. *Petiv. Gazoph.* 3. n. 458.

t. 25. f. 7. 8vo. p. 40.

Lepidocarpodendron; foliis angustissimis, gramineis; fructu cancellato; semine coronatò. *Boerh. Lugd. Bat.* 2. p. 193. c. tab.

Leucadendron cancellatum. *Linn. Sp. Pl. ed.* 1. p. 91. ed. 2. p. 134. omiss. in *Mant. et Syst. Veg.* ed. xiii.

Protea bracteata. *Thunb. Diss. n.* 24.* tab. 1. *Prod.* 26.

Linn. Suppl. 118. *Willd. Sp. Pl.* 1. p. 517. *Lam. Illust. Gen.*

1. p. 238. n. 1245. *Poiret. Encyc. Botan.* 5. p. 652.

HAB. In *Africae Australis* montibus; prope *Platte-kloof*, *Hottentots-Holland*, et alibi. (v. s. in *Herb. plur.*)

OBS. Pollen globosum,

2. *A. umbellata*, foliis planis spathulato-linearibus.

MASC. *Protea aulacea*. *Thunb. Diss. n.* 33.* tab. 2. bona.

Prod. 26. *Willd. Sp. Pl.* 1. p. 520. *Lam. Illust. Gen.* 1. p. 237.

n. 1243. *Poiret. Encyc. Botan.* 5. p. 651.

FEM. *Protea umbellata*. *Thunb. Diss. n.* 34.* *Prod.* 26. *Linn.*

Suppl. 118. *Willd. Sp. Pl.* 1. p. 520. *Lam. Illust. Gen.* 1. p. 237.

n. 1242. *And. Repos.* 248. *Poiret. Encyc. Botan.* 5. p. 650.

HAB. In *Africae Australis* montibus, prope *Prom. B. Spei*; *Taffelberg*, *Platte-kloof*, &c. (v. s. in *Herb. Banks.*)

OBS. Pollen subglobosum, obtusissimè trigonum.

2. LEUCADENDRON.

Herm. Pluk. Linn. in Class. Plant. *Conocarpodendra*, t. 195.

197. 200. 202. 203. 204. *Boerh. Protea. Linn. Gen. Pl. ed.* 2.

5. 6. *Conocarpos. Adans. Famill. Protea, Euryspermum,*

Chasme. Salisb. Parad. Lond.

CHAR. GEN. Flores dioici, organis imperfectis; capitati.

Fem. *Stigma* obliquum, clavatum, emarginatum, hispidulum.

Nux

Nux v. *Samara monosperma*, squamis (quandoque cohærentibus) strobili inclusa.

HABITUS. Frutices, raro *Arbores*, sæpe *sericeo-tomentosi*. Folia *integerrima*. Capitula *terminalia*, *solitaria*; *bracteis imbricatis foliisve verticillatis et subcoloratis plerumque cincta*.

Obs. The separation of sexes in the genus *Protea* of authors, obscurely suspected by Linnæus himself in his *Protea parviflora*, and afterwards more expressly by Lamarck in *P. pinifolia*, was first ascertained in *Aulax* and the present genus (as Mr. Dryander informs me) by our countryman Masson, during his last residence at the Cape of Good Hope, and is beautifully illustrated by that eminent botanical painter Mr. Francis Bauer, in his unpublished drawings preserved in the Banksian collection. Numerous observations on the same subject have also more recently been made by Dr. Roxburgh and Mr. Niven, who have bestowed much pains in ascertaining its limits, of which, as far as regards the African part of the family, Mr. Salisbury has given an accurate account in his Essay already quoted. The Dissertation of Thunberg, who was wholly unacquainted with this separation of sexes in these plants, is necessarily imperfect, and he has, in several cases, described the different sexes as distinct species; and thus also Bergius has founded his genus *Aulax* on the male of a species, whose female he had previously published as a *Leucadendron*. On the other hand, Jussieu, deceived by the resemblance in inflorescence, between *Brabejum* and the spiked species of *Protea*, has erroneously suspected these to be monoicous, while he has totally overlooked the truly dioicous nature of the present genus.

† *Nux ventricosa*, stylo toto calyceque persistentibus.

1. *L. argenteum*, arborcum, foliis lanceolatis argenteis : marginibus ramisque villosis, bracteis involucrantibus abbreviatis tomentosis, calycibus masculis sericeis.
Scolymocephalus Africana, foliis sericeis argenteis longis acutis. *Herm. Cat.*
Leucadendros Africana, arbor tota argentea, sericea, foliis integris. Atlas Tree. D. Herman. *Pluken. Phyt. t.* 200. *f.* 1. ramulus sine floribus nuce separatâ ; fortè speciei distinctæ.
Conifera salicis facie, folio et fructu tomento sericeo candicante obductis, semine pennato. *Sloane in Philos. Trans.* 17. *p.* 664. strobilus cum fructu separato.
Frutex Æthiopicus conifer, foliis lanuginosis omnium maximis. *Breyn. Prod.* 2. *p.* 66.
Argyrodendros africana foliis sericeis et argenteis. *Com. Hort.* 2. *p.* 51. *t.* 26. *Raj. Hist.* 3. *Dendr. p.* 9.
Globularia Africana frutescens *Thymeleæ* folio lanuginoso. *Tournef. Inst.* 467 ?
Conocarpodendron ; foliis argenteis, sericeis, latissimis. *Boerh. Lugd. Bat.* 2. *p.* 195. *c. tab.*
Scolymocephalus africanus, folio crasso nervoso sericeo. *Weinm. Phyt.* 4. *p.* 293. *t.* 900.
Brückm. Epist. Itin. 2. *p.* 8. *t.* 4. strobilus.
Protea foliis lanceolatis integerrimis acutis hirsutis nitidis. *Hort. Cliff.* 29. *Virid. Cliff.* 8. *Roy. Lugd. Bat.* 184. *Wachend. Ultraj.* 201.
Protea argentea α. *Sp. Pl. ed.* 1. *p.* 94.
Protea argentea. *Sp. Pl. ed.* 2. *p.* 137. *Mant.* 194. *Thumb. Diss. n.* 48.* *Prod.* 27. *Gært. Sem.* 1. *p.* 239. *t.* 51. *Willd. Sp. Pl.* 1. *p.* 529. *Lam. Illust. Gen.* 1. *p.* 237. *n.* 1236. *t.* 53. *f.* 1. *Poir. ret. Encyc. Botan.* 5. *p.* 648.

HAB.

HAB. In Africâ Australi, ad radices lateraque montium, prope Prom. B. Spei. (v. s. in Herb. Banks. &c.)

OBS. Squamulæ quatuor hypogynæ, longæ, angusto-lineares, in floribus masculis observæ: femineos nondum vidi.

2. *L. plumosum*, fruticosum, foliis lineari-lanceolatis muticis glabris subsericeisve: basi attenuatâ tortâ, involucris calycibusque masculis glabris; femineis persistentibus plumosis quadrifidis, nucibus cuneato-oblongis villosis.

MASC. *Protea parviflora*. Linn. *Mant.* 195.* *Syst. Veg. ed.* xiii. p. 119. Thunb. *Diss. n.* 40.* *tab.* 4. bona. *Prod.* 27. Willd. *Sp. Pl.* 1. p. 524. Lam. *Illust. Gen.* 1. p. 235. n. 1220. Poiret. *Encyc. Botan.* 5. p. 643.

FEM. *Protea obliqua*. Thunb. *Diss. n.* 39.* *Prod.* 27. Linn. *Suppl.* 117.* fide descriptionis, nullum enim specimen in herbario, monente Cel. Smith. Willd. *Sp. Pl.* 1. p. 524.

Protea plumosa. Hort. Kew. 1. p. 127.

HAB. In Africâ Australi, prope Fransche Hoek et alibi haud infrequens. (v. s. in Herb. Banks.)

OBS. Squamulæ nullæ hypogynæ in mare: femina ad anthesin haud observata.

- *3. *L. retusum*, fruticosum, foliis oblongo-spathulatis glabris: basi attenuatis; callo apicis subretuso, ramis tomentosis, involucris pubescentibus, calycibus masculis glabris, femineis plumosis quadripartitis, nucibus glabris obovato-orbiculatis.

HAB. In Africæ Australis montibus prope Prom. B. Spei; Picket-Berg. (v. s. in Herb. Soc. Linn.)

OBS. Strobilus cum Nucibus et Calyce ad basin tabulæ 199. Boerh. *Lugd. Bat.* vel ad hanc vel ad sequentem speciem pertinere videntur.

*4. *L. spa-*

- *4. *L. spathulatum* fruticosum, foliis oblongo-spathulatis: basi attenuatis; callo apicis acutiusculo recurvo ramisque glabris, calycis feminei tardiùs decidui laminis nudis, nucibus glabris latioribus quàm longis demum muticis.

HAB. In Africæ Australis planitiis elevatioribus arenosis, prope Promont. B. Spei. (v. s. in Herb. Hibbert.)

OBS. In Mare? squamulas quatuor longissimas hypogynas observavi.

- *5. *L. sessile*, fruticosum, foliis lanceolato-oblongis glabris: basi obtusâ.

HAB. In Africâ Australi prope Promont. B. Spei. *D. Masson.* (v. s. in Herb. Banks.)

OBS. Squamulæ hypogynæ longissimæ, persistentes.

†† *Nux ventricosa* v. *lenticularis aptera*, undique marginibusve pilosa. Stylus totus deciduus, basive solum remanenti. Calyx diù persistens quadripartitus.

- *6. *L. angustatum*, foliis lineari-spathulatis (passim angustatis) obtusis muticis concaviusculis ramisque glabris, strobili squamis conniventibus nucibusque pubescentibus subglobosis muticis, calycibus plumosis.

HAB. In Africâ Australi, prope Promont. B. Spei. *D. Masson.* (in Herb. D. Aiton. vidi.)

DESC. *Frutex*, ramis strictis, divisis. *Folia* sparsa, frequentia, erecta, 8—9 lineas longa, obtusissima, ad apicem (vix callosum) sesquilineam lata, in eodem ramo passim dimidio angustiora. *Strobilus* subglobosus, magnitudine globuli scloppei minoris: *Squamis* ovatis exterioribus latioribus. *Nux* magnitudine seminis *Viciæ*, levissimè compressa undique pube brevi induta, cincta calyce ad basin quadripartito vix longiore.

*7. *L. im-*

- *7. *L. imbricatum*, foliis lanceolato-linearibus glabris imbricatis basi obtusis, squamis strobili dilatato-cuneatis retusis sericeis, nucibus undique comosis basi styli cuspidatis.

Protea Levisanus. *Herb. Linn.*

HAB. In Africâ Australi, prope Prom. B. Spei.; Rode Zant. (v. s. in *Herb. Banks. et Soc. Linn.*)

OBS. Squamæ nullæ hypogynæ.

- *8. *L. buxifolium*, foliis ovali-lanceolatis subimbricatis: adultis glabris, squamis strobili dilatato-cuneatis sericeis, nucibus undique comosis basi styli mucronatis.

Protea imbricata. *Wend. Hort. Herenh. tab. 14?* excl. syn.

HAB. In Africâ Australi. *D. Masson.* (v. s. in *Herb. Banks.*)

DESC. *Frutex* erectus, ramosissimus. *Rami* umbellati, tenuissimè tomentosi. *Folia* frequentia, erecto-imbricata, sessilia, concaviuscula, avenia, opaca, semiunguicularia; superiora tenuissimè pubescentia; floralia angustiora. MASC. *Capitulum* sessile magnitudine pisi. *Calyx* tubo unguibusque sericeis, laminis glabriusculis. *Squamulæ* quatuor hypogynæ longæ, lineares. FEM. *Capitulum* paulo majus. *Calycis* ungues laminæque sericeæ. *Squamulæ* nullæ hypogynæ. *Nux* ovata, calyce diù cincta.

OBS. I. Nimis affine *L. imbricato*, figurâ foliorum præsertim distinguendum.

OBS. II. Icon *Wend.* suprâ citata forsan diversæ speciei; foliis oblongis semuncialibus pilosis, strobilis longioribus, squamulis hypogynis: an potiùs ad priorem referenda?

9. *L. Levisanus*, foliis obovato-spathulatis obtusissimis: adultis glabris, ramulis pilosis, capitulis masculis sessilibus, nucibus undique comosis muticis.

Levisanus.

Levisanus capensis serpylli folio. *Petiv. Gazoph.* 9. t. 5. f. 7? mala.

Chrysanthemum Conyzoides Æthiopicum, capitulo aphylo, *Tithymali paralii* foliis subrotundis, hiulculis in superficie conspicuis. *Pluk. Mant.* 47. t. 343. f. 9. bona.

Conocarpodendron; foliis subrotundis, brevissimis, capituli immaturi globosi parte inferiore fuscâ, mediâ aureâ, supremâ viridi. *Boerh. Lugd. Bat.* 2. p. 202. c. tab.

Brunia foliis oblongis incanis, florum capitulo ramulum terminante. *Burm. Afr.* 267.* t. 100. f. 2. Mas. bona.

Scolymocephalus seu *Conocarpodendron*, foliis brevissimis. *Weinm. Phyt.* 4. p. 296. t. 904. a. pessima quoad colores

Protea fusca. *Linn. Sp. Pl. ed.* 1. p. 95.

Brunia Levisanus. *Linn. Sp. Pl. ed.* 2. p. 289.

Leucadendron Levisanus. *Berg. Act. Stockh.* 1766. p. 324.* *Berg. Cap.* 20.* Mas.

Protea Levisanus. *Linn. Syst. Nat. ed.* xii. t. 2. p. 111. *Mant.* 194.* quoad descriptionem, sed specimen in Herbario est feminae *L. imbricati.* *Thunb. Diss. n.* 43.* *Prod.* 27. *Willd. Sp. Pl.* 1. p. 526. *Lam. Illust. Gen.* 1. p. 235. n. 1223. *Poiret. Encyc. Botan.* 5. p. 644. *Wend. Hort. Herenh.* t. 1. Mas.

HAB. In Africae Australis campis sabulosis ericetisque, prope Prom. B. *Spei.* (v. s. in Herb. Banks.)

OBS. Squamulae nullae hypogynae.

10. *L. tortum*, foliis spathulato-linearibus obtusis basi tortis: adultis glabris; junioribus ramulisque subsericeis, capitulis masculis pedunculatis, calycis laminis sericeis, nucibus undique comosis muticis.

Protea torta. *Thunb. Diss. n.* 31.*? *Prod.* 26.? *Willd. Sp. Pl.* 1. p. 519?

Protea

Protea cinerea. Willd. *Sp. Pl.* 1. p. 521.* Fem. sec. disc. exclus. syn.

HAB. In *Africæ Australis depressis*, prope Prom. B. Spei. (v. s. in Herb. Banks. et Soc. Linn.)

11. *L. cinereum*, foliis spathulato-linearibus argenteis, capitulis masculis sessilibus, nucibus obovato-cuneatis villosiusculis muticis.

Protea alba. Thunb. *Diss. n.* 32.* sec. desc. *Prod.* 26. Willd. *Sp. Pl.* 1. p. 520. Lam. *Illustr. Gen.* 1. p. 236. n. 1233. Poir. *Encyc. Botan.* 5. p. 647.

Protea cinerea. Hort. Kew. 1. p. 127. Fem. fid. spec. descript. in Herb. Banks.

HAB. In *Africâ Australi*, prope Prom. B. Spei. (v. s. in Herb. Banks.)

OBS. Squamulæ quatuor hypogynæ in utroque sexu.

12. *L. corymbosum*, foliis lineari-subulatis imbricatis glabris, strobili squamis acutis apice recurvis, nucibus subcompressis obcordatis margine pilosis.

Leucadendron corymbosum. Berg. *Act. Stockh.* 1766. p. 325.* Berg. *Cap.* 21.* Mas

Protea corymbosa. Thunb. *Diss. n.* 28.* (desc. e mare præcipuè.) tab. 2. Mas. Thunb. *Prod.* 26. Willd. *Sp. Pl.* 1. p. 518. Lam. *Illustr. Gen.* 1. p. 238. n. 1250. Poir. *Encyc. Botan.* 5. p. 653.

Protea bruniades. Linn. *Suppl.* 117.* Mas. fid. spec. in illius Herb. *Protea corymbosa*. And. *Repos.* 495. Fem.

HAB. In *Africâ Australi*, Drakenstein, Swartland, Rode Zant. (v. s. in Herb. Soc. Linn.)

OBS. Squamulæ quatuor hypogynæ in utroque sexu.

††† *Samara glabra alata v. aptera*. Stylo (fere toto) calyceque deciduis. Squamæ strobili distinctæ.

13. *L. decorum*, foliis oblongis venosis callo recurvo : adultis glabris ; junioribus ramisque sericeis ; floralibus coloratis semiscariosis, strobili squamis extùs tomentosis : apice retuso parùm coarctato glabro, nucibus marginatis impresso-punctatis.

Protea laureola. *Lam. Illustr. Gen.* 1. p. 234. n. 1214. *Poiret. Encyc. Botan.* 5. p. 641.* Fem. exclus. syn. Linnei, Thunbergii, Schraderi.

HAB. In Africâ Australi, prope Prom. B. Spei. (v. s. in Herb. Banks.)

14. *L. squarrosus*, foliis lanceolato-oblongis : callo recurvo anticè sulco lineari ; adultis ramisque glaberrimis, amenti feminei oblongo-ovati squamis sursùm glabris dilatatis integris ciliatis : strobili recurvis undulatis.

MASC. *Protea arcuata*. *Lam. Illustr. Gen.* 1. p. 234. n. 1215?

Protea obliqua α. *Poiret. Encyc. Botan.* 5. p. 642.*? exclus. syn. Thunber. Linnei et Boerhaav.

FEM. *Protea strobilina*. *Linn. Mant.* 192.*

β. *Conocarpodendron* ; folio rigido, crasso, angusto, cono laricis parvo. *Boerh. Lugd. Bat.* 2. p. 197. c. tab. Fem.?

HAB. In Africâ Australi, prope Prom. B. Spei. (v. s. in Herb. Soc. Linn.)

15. *L. concolor*, foliis spathulato-oblongis : callo anticè subrotundo ; adultis glabris ; floralibus masculis concoloribus, ramis pubescentibus, amenti feminei squamis retusis basi tomentosis, margine ciliatis.

MASC. *Protea arcuata* β. *Lam. Illustr. Gen.* 1. p. 234. n. 1215?

Protea

Protea globosa. *And. Repos.* 307. bona. *Sims in Bot. Mag.* 878.

Protea obliqua β . *Poiret. Encyc. Botan.* 5. p. 642? exclus. syn. Boerh. Thunb. Linnei, Willd.

FEM. *Protea strobilina*. *Schrad. Sort. Hanov.* 1. p. 7. t. 1.

HAB. In Africâ Australi, prope Prom. B. Spei. (v. s. in Herb. Soc. Linn.)

16. *L. grandiflorum*, foliis lanceolato-oblongis: callo apicis antice subrotundo; adultis glabris; floralibus coloratis, ramis tenuissimè tomentosis, squamis amenti utriusque sexûs ovatis obtusiusculis glabris fucatis.

MASC. *Euryspermum grandiflorum*. *Salisb. Parad.* 105.

HAB. In Africâ Australi, prope Prom. B. Spei. (v. s.)

- *17. *L. ovale*, foliis oblongo-ovalibus subaveniis: callo obtuso; adultis utrinque glabris margine tomentosis, strobili squamis lanceolato-ovatis acutis glabris, samaris apteris impunctatis extûs ventricosis.

Protea strobilina. *Thunb. Diss. n.* 44.* secund. descrip.

HAB. In Africâ Australi. *D. Masson. Palmetta River. Gul. Roxburgh M. D.* (v. s. in Herb. Banks.)

- *18. *L. venosum*, foliis oblongo-lanceolatis venosis glabris: callo acuto, strobili squamis ovato-lanceolatis acutis ciliatis extra medium glabris, calycibus persistentibus, nucibus apteris.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

19. *L. decurrens*, foliis lanceolato-spathulatis basi attenuatis subdecurrentibus concaviusculis ramisque glabris, calycis femi-

nei tubo hirsuto, strobili squamis subrotundis demùm glabriusculis, samaris obcordatis alatis cinereis utrinque convexis. *Protea pallens*. *Thunb. Diss. n. 41.** secund. descrip. exclus. omnibus synonymis.

Protea chamekeæ. *Lam. Illustr. Gen. 1. p. 237. n. 1240?* exclus. syn. *Poiret. Encyc. Botan. 5. p. 650**?

HAB. In Africâ Australi, prope Prom. B. Spei. (v. s. in Herb. Banks. et Soc. Linn.)

*20. *L. glabrum*, foliis linearilanceolatis aveniis: adultis ramisque glabris, strobili squamis obtusissimis subretusis tuboque calycis nudis, samaris alatis nigris planiusculis dilatatis.

HAB. In Africâ Australi, prope Prom. B. Spei. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

21. *L. strictum*, foliis linearibus mucrone subulato glabris, bracteis involucrantibus ovatis acutis capitulo florido longioribus, strobili squamis dilatatis rotundatis glabris, samaris apteris impresso-punctatis.

MASC. *Euryspermum salicifolium*. *Salisb. Parad. 75. bona.*

Protea conifera. *And. Repos. 541.*

Protea conica. *Lam. Illustr. Gen. 1. p. 237. n. 1237?*

Protea conifera A. *Poiret. Encyc. Botan. 5. p. 649?*

HAB. In Africâ Australi, ad ripas fluviorum et in humidis inter saxa, prope Stellenboch et Rode Zant. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks. et Soc. Linn.)

*22. *L. virgatum*, foliis linearibus acutis pellucido-marginatis ramisque glaberrimis: floralibus linearilanceolatis elongatis, strobili squamis ovatis integris incano-tomentosis, samaris alatis emarginatis.

HAB.

HAB. In Africâ Australi, prope Promont. B. Spei. (v. s. in Herb. Soc. Linn.)

Obs. Folia ramea basi torta; floralia intùs colorata rameis strobilisve duplo longiora; bracteæ involucranes capitulo florido breviores. Strobilus ovatus magnitudine Avellanæ, squamis tomento vix nitente, superioribus apice sub-coarctatis.

*23. *L. adscendens*, foliis lineari-lanceolatis acutis: floralibus lanceolatis apice coarctatis coloratis concavis, strobili squamis ovatis integris incano-tomentosis, samaris alatis emarginatis, ramis adscendentibus, caulibus subdepressis.

Thymelæa capitata seu julifera angusto salicis folio promontorii Bonæ Spei. *Pluk. Mant.* 181. t. 229. f. 6. Mas. fide specim. in Herb. Pluk.

Conocarpodendron; folio angusto, rigido, brevior; cono parvo aureo, coronâ foliaceâ succincto. *Boerh. Lugd. Bat.* 2. p. 200. c. tab.?

Scolymocephalus minor. *Wein. Phyt.* 4. p. 295. t. 903. a.?

Protea pallens. *Linn. Mant.* 193.* Mas. fid. spec. in ejusd. Herb.

Protea conifera. *Linn. Mant.* 193.* Fem. fid. spec. in ejusd. Herb.

HAB. In Africæ Australis montibus, prope Promont. B. Spei. (v. s. in Herb. Banks.)

Obs. I. Strobilus ad basin tab. 9. Breyn. Cent. huc pertinet.

Obs. II. *Protea pallens* et conifera auctorum recentiorum eorum descriptionibus incompletis et ab altero solùm sexu desumptis vix extricandæ et æquo jure ad hanc speciem vel ad *L. virgatum* v. *glabrum* citari possint.

*24. *L. concinnum*, foliis lanceolato-oblongis obtusiusculis aveniis ramisque

ramisque glaberrimis : floralibus subconformibus semicoloratis, strobili squamis ovatis integris argenteo-tomentosis, samaris alatis emarginatis.

HAB. In Africæ Australis montibus. *D. Niven.* (in Herb. Hibb. vidi.)

DESC. *Frutex* decempedalis (*Niven.*) *Rami* stricti, glaberrimi. *Folia* frequentia, erecta, subimbricata, uncialia, marginibus angustissimis, semipellucidis, scabriusculis, parùm concava, callo apicis obtusiusculo : *floralia* sesquiuncialia, strobilo maturo vix duplo longiora.

25. *L. salignum*, foliis lanceolato-linearibus acutissimè mucronatis subsericeis : floralibus lanceolatis coloratis, strobili squamistomentosis sursùm dilatatis retuso-bilobis margine glabris, samaris apice latiusculò margine angustissimè alatis.

Conocárpodendron ; folio tenui, angusto, saligno; cono calyculato, coronâ foliaceâ succincto. *Boerh. Lugd. Bat. 2. p. 204. c. tab.*

Protea foliis lineari-lanceolatis integerrimis acutis. *Hort. Cliff. 29. secund. spécim. in Herb. Cliff. quod ramulus absque fructificatione.*

Protea foliis lineari-lanceolatis integerrimis superioribus hirsutis nitidis. *Roy. Lugd. Bat. 184.*

Protea argentea β. *Linn. Sp. Pl. ed. i. p. 94. exclus. syn. Breyonii et Tournefortii.*

Protea conifera α. *Linn. Sp. Pl. ed. ii. p. 138. excl. syn.*

Protea saligna. *Linn. Mant. 194. Mas. exclus. syn. Bergii et Breynii. Lam. Illustr. Gen. 1. p. 236. n. 1235. Poiret. Encyc. Botan. 5. p. 648.* Fem.*

HAB. In Africâ Australi, prope Promont. B. Spei, in montosis. (v. s. in Herb. Soc. Linn.)

26. *L. uli-*

26. *L. uliginosum*, foliis lanceolato-linearibus utrinque argenteis tomento arcuè adpresso: callo apicis acuto, ramis tomentosis, calycis feminei tubo hirsuto, squamis strobili sericeis dilatatis subundulatis obsolete retusis, samaris apteris.

Frutex æthiopicus conifer foliis cneori salici æmulis. *Breyn. Cent.* 21. t. 9. excepto strobilo ad basin tabulæ, qui ad *L.* adscendens pertinet.

Protea saligna. *Thunb. Diss. n.* 47.* secund. descrip.

HAB. In Africæ Australis uliginosis, prope Prom. B. Spei. (v.s.)

27. *L. floridum*, foliis lanceolato-linearibus sericeis supra villosis: callo apicis acuto; floralibus subtus ramisque hirsutis, calycibus masculis longitudinaliter pilosis, strobili squamis tomentosis apice dilatatis integris, samaris apteris.

Thymelæa capensis sericeis longioribus et acutis foliis caule geniculato-piloso. *Pluk. Phyt.* 181. t. 229. f. 4. fide specim. in ejus Herb.

Protea saligna mas et fem. *And. Rep.* 572?

HAB. In Africâ Australi, prope Promont. B. Spei, in paludosis ad radicem Montis Wynberg. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks. et Mus. Brit.),

††† Squamæ strobili connatæ. Samara foliaceo-compressa, glabra. Folia aliqua vel omnia filiformia.

- *28. *L. platyspermum*, foliis superioribus lineari-spathulatis: callo obtuso, strobili squamis duplicatis longitudinaliter accretis: rimis semicircularibus, samaris duplo latioribus quàm longis.

HAB. In Africâ Australi, prope Promont. B. Spei. Hout Hoek. *And. Auge.* (v. s. in Herb. Banks.)

DESC. Frutex glaber. Folia inferiora filiformia, canaliculata, sesquiuncialia; superiora plana, vix longiora.

MASC.

MASC. *Amentum* ovatum, bracteis lanceolatis, sericeis subtensum. *Lamina* calycis glabræ. *Stigma* clavatum.

FEM. *Amentum* oblongum : *Squamis* glabris connatis. *Ungues* calycis villosæ. *Lamina* glabræ. *Stigma* dilatatum, obliquum, papulosum. *Strobilus* oblongus, quandoque ovatus, rimis transversis semicirculum sub-æquantibus. *Samara* cinerea, lævis.

29. *L. comosum*, foliis superioribus spathulato-lanceolatis obtusis mucronatis rugoso-striatis, strobilis oblongis : squamis basi connatis suprâ distinctis marginibus inflexis sub-barbatis, samaris subrotundis nigris.

Protea comosa. *Thunb. Diss. n. 25.** secund. descript. folior. *Prod. 26. Willd. Sp. Pl. 1. p. 517. Lam. Illust. Gen. 1. p. 238. n. 1254. Poiret. Encyc. Botan. 5. p. 655.*

HAB. In Africâ Australi, pone Montes Swellendam. *D. Masson.* (v. s. in Herb. Banks. et D. Aiton.)

- *30. *L. æmulum*, foliis superioribus lanceolato-spathulatis acutis rugoso-striatis, strobilis ovatis : squamis basi cohærentibus suprâ distinctis marginibus recurvis imberbibus, samaris subrotundis nigris.

Protea incurva. And. Repos. 429. fortè *Mas* hujus speciei, quamvis folia superiora vix duplo latiora.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

31. *L. abietinum*, foliis omnibus filiformibus canaliculatis obtusiusculis lævibus patulis arcuato-incurvis, strobili squamis marginibus axibusque infrâ connatis suprâ distinctis bilobis.

Protea

Protea teretifolia. *And. Repos.* 461. femina et ramulus ad 4. mas.

HAB. In Africâ Australi, prope Prom. B. Spei, frequens. (v. s. in Herb. Banks. et Soc. Linn.)

- *32. *L. scabrum*, foliis omnibus filiformibus canaliculatis acutis imbricatis rectiusculis margine scabris pilosisve, strobili squamis marginibus axibusque infrâ connatis apicibus distinctis bilobis.

HAB. In Africâ Australi. (v. s. in Herb. Hibbert.)

††††† *Dubiæ tribus. Feminis adhucdum incognitis.*

33. *L. sericeum*, foliis lanceolatis sericeis semiunguicularibus, caule erecto, capitulis sessilibus solitariis aggregatisve turbinatis, calycibus masculis longitudinaliter pubescentibus: tubo gracili infernè stylo cohærente.

Protea sericea. *Linn. Suppl.* 118.* fide specim. in ejus Herb.

Protea sericea. *Thunb. Diss. n.* 46.* sed caulis erectus videtur.

HAB. In Africâ Australi, prope Promont. B. Spei. (v. s. in Herb. Banks.)

34. *L. Globularia* foliis lineari-spathulatis glabris aveniis: eallo obtusissimo; basi attenuatâ tortâ, capitulis sessilibus depressoglobosis: bracteis tomentosis, calycibus masculis pubescentibus, stigmate clavato.

Protea globularia. *Lam. Illustr. Gen.* 1. p. 236. n. 1232. t. 53.

f. 2. *Poiret. Encyc. Botan.* 5. p. 647? exclus. syn. Thunbergii.

DESC. *Fruticulus* erectus ramosissimus, ramis strictis, ultimis sericeis. *Folia* sparsa, 8—9 lineas longa, inferiora ramorum breviora, capitulum subtendentia confertiora. *Brac-*

teæ involucrantes capitulo dimidio breviores, ovatæ, arcuè imbricatæ. *Calyx* tubo gracili unguibusque villosis, laminis glabris. *Ovarium* nullum. *Stylus* villosus. *Squamulæ* quatuor, lineares, longæ, basi styli infrà adnatæ.

- *35. *L. pubescens*, foliis spathulato-linearibus obtusis obliquis: adultis pubescentibus; junioribus sericeis, ramis villosis, involucris capitulo globoso sessili brevioribus tomentosis, calycibus stylisque pubescentibus.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

Obs. Quam maxime affine præcedenti.

- *36. *L. ericifolium*, foliis acerosis glabris semiunguicularibus, capitulis corymbosis paucifloris, calycibus tomentosis.

HAB. In Africâ Australi. *Dom. J. Roxburgh.* (v. s. in Herb. Lambert. et Soc. Linn.)

DESC. *Frutex* erectus, ramosissimus, ramis rubicundis, ramulis tenuissimè tomentosis. *Folia* frequentia, erecta, imbricata, mutica, concaviuscula. *Capitula* breviter pedunculata, *Involucro* brevioris sericeo subtensa. *Calyx* tubo gracili. *Ovarium* nullum. *Stylus* glaber. *Stigma* clavatum. *Squamulæ* nullæ intra calycem.

- *37. *L. crassifolium*, foliis cuneato-obovatis obtusissimis glaberrimis crassis aveniis (3-uncialibus) basi attenuatis, capitulis globosis, bracteis propriis lanatis, calycibus glabris.

HAB. In Africâ Australi. *D. Masson.* (v. s. in Herb. Banks.)

Obs. *Rami* glaberrimi, glauci, crassitie digiti minimi. *Folia* frequentia, glauca, rigida, sesquiunciam lata, callo subrotundo, acutiusculo,

acutiusculo, marginibus subsimplicibus per lentem minutè crenulatis, novellis ciliatis. *Capitulum* magnitudine cerasi maximi. *Calycis Tubus* cylindraceus. *Laminæ* lineares, planiusculæ, unguisque recurvæ. *Stylus* glaber. *Stigma* oblongo-clavatum.

An hujus generis ?

- *38. *L. cartilagineum*, foliis ovali-spathulatis obtusissimis : callo subtruncato : aveniis cartilagineis glaberrimis ; basi attenuatâ lineari, capitulis globosis subpedunculatis, bracteis calycibusque tomentosis.

HAB. In Africâ Australi. (v. s. in Herb. Soc. Linn. et D. Herbert.)

DESC. *Frutex* erectus, ramulis tenuissimè tomentosis. *Folia* vix uncialia, siccatione venis obsoletis depressis. *Capitulum* magnitudine cerasi minoris, pedunculo brevissimo bracteisque villosis. *Calyx* quadrifidus. *Stylus* glaber. *Stigma* oblongo-clavatum.

An hujus generis ?

3. PETROPHILA.

ATYLI species. *Salisb. Parad.*

GEN. CHAR. *Calyx* quadrifidus, totus simul deciduus. *Stylus* basi persistenti. *Stigma* fusiforme, apice attenuato. *Squamulæ* nullæ hypogynæ. *Strobilus* ovatus. *Nux* lenticularis, hinc comosa, v. *Samara* basi barbata.

HABITUS. Frutices rigidi. *Folia* glabra, varia, filiformia v. plana, indivisa, lobata v. pinnatifida, quandoque in eodem frutice diversiformia. Amenta ovata v. oblonga, terminalia et axillaria, nunc aggregata. Genus, posthac, speciebus incrementibus,

dividendum, phalangibus infra propositis genera futura indicantibus.

ΕΤΥΜ. Πετρος et φιλεω. Hi frutices enim semper in saxosis apricis proveniunt.

OBS. Mr. Salisbury has united such of the New Holland Proteæ as he had seen, into one genus, which he calls *Atylus*; a name meant to express the want of those bodies that usually surround the ovarium, in this order, and which he chooses to term *calli*: but as I conceive they are certainly secreting organs, the name on this ground would be exceptionable: my chief reason however for not adopting it, either for the present or the following genus, is, that the whole of his essential character does not apply to either of them. In his secondary character, he has also considered them as monoicous, a mistake into which he has probably been led, not only from the striking similarity between the strobili of *Petrophila* and *Leucadendron*, but also from the style of the former remaining for some time unwithered after the calyx has fallen off. In one species he has even described the relative situation of the sexes; regarding the terminating amentum of *P. pulchella* as female, and the lesser ones, which frequently though not always surround it, as male; but that this is not the case is proved by Cavanilles' figure of the species, in which all the amenta are in fruit, and a specimen in the same state may be seen in Sir Joseph Banks's Herbarium.

† *Stigma articulatum, articulo inferiore angulato, glabro, superiore tomentoso. Nux lenticulari-compressa, intus marginibusque comosa. Folia filiformia indivisa.*

*1. *P. teretifolia, foliis teretibus exsulcis, squamis strobili nervibus, stigmatis articulo superiore stuposo triplo longiore.*

HAB.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land. (ubi v. v.)

- *2. *P. filifolia*, foliis teretibus exsulcis, squamis strobili nervosis orbiculatis, stigmati articulo superiore barbato vix duplo longiore.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in collibus saxosis. (ubi v. v.)

- *3. *P. acicularis*, foliis filiformibus suprâ obsoletè sulcatis, squamis strobili nervosis ovatis.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in campis collibusque sterilibus. (ubi v. v.)

†† *Stigma inarticulatum, hispidiusculum. Nux lenticulari-compressa, intùs marginibusque comosa. Strobilus squamis distinctis. Folia filiformia bipinnatifida.*

- *4. *P. rigida*, foliis triternatis: laciniis divaricatis, calycibus barbatis: laminarum apiculis glabris.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in collibus saxosis. (ubi v. v.)

5. *P. pulchella*, foliis trifido-bipinnatis: laciniis erectis, calycibus sericeis: laminarum apicibus tomentosis.

Protea pulchella. Schrad. Sert. Hanov. ii. p. 15. t. 7. Willd. Sp. Pl. 1. p. 507. Cavan. Anal. 1. p. 237.* Ic. 6. p. 33. t. 550. Sims, Bot. Mag. 796.*

Protea fucifolia. Salisb. Prod. 48.

Protea dichotoma. Cavan. Anal. 1. p. 239. Ic. 6. p. 34.* t. 551.*

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson; in arenosis inter saxa. (ubi v. v.)

*6. *P. fas-*

- *6. *P. fastigiata*, foliis trifido-bipinnatis: laciniis erectis fastigiatis teretiusculis muticis, calycibus glabris, strobilis terminalibus sessilibus: squamis lanatis.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in ericetis aridis elevationibus. (ubi v. v.)

- *7. *P. pedunculata*, foliis tripinnatifidis: laciniis canaliculatis divaricato-patulis, calycibus glabriusculis, strobilis pedunculatis: squamis glabris.

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson; in montibus saxosis. (ubi v. v.)

††† Strobilus *squamis connatis*. Samara *foliacea, dilatata*. Stigma *inarticulatum, hispidiusculum*. Folia *plana, bipinnatifida*.

- *8. *P. diversifolia*, foliis bi-tripinnatifidis planis: laciniis mucronatis, calycibus barbatis, strobilis axillaribus pedunculatis: squamis lanatis cohærentibus.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in collibus saxosis. (ubi v. v.)

†††† Strobilus *squamis distinctis*. Samara *planiuscula*. Folia *plana, ternatim divisa*.

- *9. *P. squamata*, foliis trifidis: lobis lineari-lanceolatis; lateralibus sæpiùs bi--trifidis, strobilis axillaribus sessilibus: squamis apice scariosis glabris.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in ericetis collibusque aridis. (ubi v. v.)

- *10. *P. trifida*, foliis trifidis: lobis spathulato-lanceolatis sæpissimè indivisis, strobilis axillaribus sessilibus: squamis apice sericeis.

HAB.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land ; in collibus apricis sterilibus. (ubi v. v.)

4. ISOPOGON.

ATYLI species. *Salisb. Parad.*

GEN. CHAR. *Calyx* quadrifidus, tubo gracili, diutiùs persistente. *Stylus* totus deciduus. *Stigma* fusiforme, v. cylindraceum. *Squamæ* nullæ hypogynæ. *Nux* sessilis, ventricosa, undique comosa.

HABITUS. Frutices *rigidi*. Folia *glabra, plana v. filiformia, divisa v. integerrima*. Capitula *terminalia, rarò axillaria*. Floribus *modò densissimè imbricatis strobilo globoso ; modò fastigiatis receptaculo communi planiusculo subinvolutrato, paleis deciduis congestis*. Genus distinctum, præcedenti proximum, posthac forsân in duo dividendum, ratione inflorescentiæ secundum quam species infrà distributæ sunt, in duas phalanges habitu parùm diversas.

ETYM. *Ισος* et *πογον*, ob nuces undique æqualiter barbatas ; quâ notâ a *Petrophilâ* facillè distinguendus.

† *Strobilus globosus ; squamis densissimè imbricatis, tardiùs deciduis.*

*1. *I. teretifolius*, foliis bi- v. triternatis filiformibus exsulcis, ramulis tomentosis, calycis tubo sericeo : laminis longitudinaliter barbatis.

HAB. In Novæ Hollandiæ orâ aùstrali, Lewin's Land ; in ericetis collibusque saxosis. (ubi v. v.)

2. *I. anethifolius*, foliis pinnatifidis bipinnatifidisque filiformibus suprâ sulcatis : laciniis erectiusculis, ramis glabris, calycis tubo pubescente : laminis infrâ glabris apice barbato.

Protea

Protea anethifolia. *Salisb. Prod.* 48.

Protea acufera. *Cavan. Anal.* 1. p. 236.* *Ic.* 6. p. 33.
t. 549.

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in ericetis. (ubi v. v.)

*3. *I. formosus*, foliis bipinnatifidis subtriter-natis filiformibus supra canaliculatis : laciniis divaricatis, ramulis tomentosis, calycibus glabris : laminis apice pilosiusculis.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land ; in collibus saxosis. (ubi v. v.)

4. *I. anemonifolius*, foliis trifido-pinnatifidis bipinnatifidisve : laciniis linearibus planis patenti-erectis subtùs lævibus, strobili squamis stuposis.

Protea anemonifolia. *Salisb. Prod.* 48. *Sims, Bot. Mag.* 697.
And. Repos. 332.

Protea tridactylides. *Cavan. Anal.* 1. p. 235.* *Ic.* 6. t. 33.*
t. 548.

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in ericetis saxosis. (ubi v. v.)

*5. *I. ceratophyllus*, foliis trifido-bipinnatifidis : laciniis linearibus planis divaricato-patulis utrinque striatis mucronatis ; floralibus basi dilatatis, strobili squamis glabris.

HAB. In Novæ Hollandiæ orâ australi, prope Port Phillip. ;
in campis et collibus. (ubi v. v.)

*6. *I. trilobus*, foliis cuneatis planis trilobis : basi attenuatis petiolatis ; lobis integerrimis, ramulis tomentosis.

HAB.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land ; in cricetis siccis. (ubi v. v.)

- *7. *I. longifolius*, foliis lineari-lingulatis : superioribus integerrimis ; inferioribus passim trifidis, calycibus sericeis, stigmate glabro.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land ; in collibus saxosis. (ubi v. v.)

• †† *Receptaculum commune planum v. convexiusculum, paleis deciduis.*

- *8. *I. cuneatus*, foliis oblongo-cuneatis obtusissimis, involucri bracteis tomentosis, calycibus glabris, stigmate fusiformi.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land. *D. A. Menzies.* (v. s. in Herb. Banks.)

- *9. *I. attenuatus*, foliis elongato-oblongis mucronulatis basi attenuatis, ramis bracteisque involucribrantibus glabris, capitulis solitariis, calycis laminis apice barbatis, stigmate cylindraceo.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land ; in collibus saxosis. (ubi v. v.)

- *10. *I. polycephalus*, foliis lineari-oblongis mucronulatis, ramulis tomentosis, capitulis subaggregatis : bracteis omnibus lanatis, stigmate cylindraceo.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land ; in collibus saxosis. (ubi v. v.)

- *11. *I. buxifolius*, foliis ovatis sessilibus acutis : apicibus recurvis,

caulibus proliferis, capitulis solitariis foliis obvallatis; bracteis subulatis, stigmate fusiformi.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in ericetis elevationibus subhumidis. (ubi v. v.)

- *12. I. *axillaris*, foliis cuneato-lingulatis mucronulatis, capitulis axillaribus paucifoliis; bracteis involucrantibus ovatis imbricatis, calycis laminis longitudinaliter barbatis, stigmate fusiformi.

HAB. In Novæ Hollandiæ orâ australi, Lewin's Land; in collibus saxosis. (ubi v. v.)

5. PROTEA.

Linn. Gen. Pl. cd. i. Class. Plant. Leucadendron. Linn. Gen. Pl. ed. ii. v. et vi. Proteæ sp. Linn. Syst. Veg. xiii. Thunb. Diss. Juss. Gen. Erodendrum. Salisb. Parad.

CHAR. GEN. *Calyx* bipartibilis, inæqualis, labii latioris laminis staminiferis cohærentibus. *Stylus* subulatus. *Stigma* angustius, cylindraceum. *Nux* undique barbata, stylo persistenti caudata. *Receptaculum* commune, paleis abbreviatis persistentibus. *Involucrum* imbricatum, persistens.

HABITUS. Frutices modò proceriores et quandòque arborescentes, modò subæcuules. Folia integerrima. Capitula terminalia, rariùsve lateralìa: Receptaculo planiusculo, nunc convexo, sæpissimè glabro, paleis quandòque connatis alveolato: Involucro magno, colorato, turbinato v. hemisphærico: Calycis labio latiore sæpè 2—3-aristato.

† Capitula

† *Capitula terminalia.*

1. *P. Cynaroides*, foliis subrotundis petiolatis, involucris sericeis; bracteis interioribus acutis imberbibus, stylo infra medium pubescenti.

Scolymocephalos Africana lato rotundo glabro folio, cono maximo sericeo candido. *Herm. Cat. Mt. Raj. Hist.* 3 *Dendr.* p. 9.

Cinaroides frutex folio subrotundo rigido e Monte Tabulari. *Petiv. Mus.* 374.

Lepidocarpodendron; folio subrotundo, rigido, in pedunculo longo, crasso; flore maximo, purpurco. *Boerh. Lugd. Bat.* 2. p. 184.* c. tab. bona.

Scolymocephalos africanus folio lato rotundo. *Weinm. Phyt.* 4. p. 287. t. 892.

Leucadendron foliis subrotundis patentissimis petiolatis, foliolis calycinis carinatis. *Wachen. Ultraj.* 204.

Leucadendron cinaroides α . *Linn. Sp. Pl. ed. i.* p. 92. *ed. ii.* p. 135. *Berg. Act. Stockh.* 1766. p. 319.

Protea cynaroides. *Linn. Mant.* p. 190.* *Syst. Veg.* xiii. p. 118. *Thunb. Diss. n.* 59.* (exclus. syn. *Lepidocarpodendron*, &c. *Boerh. Lugd. Bat.* 2. p. 199. c. tab.) *Thunb. Prod.* 28. *Lam. Illust. Gen.* 1. p. 234. n. 1209. *Willd. Sp. Pl.* 1. p. 534. *And. Repos.* 288. bona. *Poiret. Encyc. Botan.* 5. p. 639. *Sims, Bot. Mag.* 770.

HAB. In Africâ Australi, ad latera montium prope Promont. B. Spei. (v. v. in Hort. var.)

- *2. *P. latifolia*, foliis late-ovatis semicordatis sessilibus, involucri sericeo-tomentoso; bracteis interioribus angustatis apice dilatato barbato, calyce tomentoso: aristis hirsutis longitudine laminarum, stylo pubescenti.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* in arenosis Zwartberg. *D. Niven.* (v. s. in Herb. Hibbert. et Lambert.)

DESC. *Frutex* 6—8 pedes altus. *Rami* tenuissimè tomentosi. *Folia* obtusissima, callo nullo prominulo, marginata, venosa, 3—4 uncias longa, 2—3 uncias lata, adulta glabra marginibus quandòque lanatis. *Involucrum* folia superiora superans, turbinatum, pugno majus: *Bracteis* obtusis, ciliatis; exterioribus latè ovatis; mediis oblongis; intimis elongatis, ungue lineari, laminâ oblongâ. *Calyx* ferè triuncialis, sericeo-tomentosus, labio latiore triaristato, aristis hirsutis, villis patulis terminalibus præsertim purpureis. *Stylus* angulato-compressus, pube brevi adpressa subsericeus, apice glabro, curvato. *Stigma* subulatum, apice obtusiusculo.

3. *P. compacta*, foliis oblongo-ovatis cordatis marginatis: callo apicis prominulo, involucro sericeo-tomentoso ciliato imberbi, calycis aristis longitudine laminarum, stylo glabro apice curvato, stigmatis apice conico-incrassato.

HAB. In Africæ Australis montosis, Hout Hoek. *D. Masson.* (v. s. in Herb. Banks.)

4. *P. longiflora*, foliis ovato-oblongis sessilibus basi subcordatis simplicibusve, ramis tomentosis, involucro sericeo; bracteis intimis elongatis sericeo-ciliatis, calycis aristis brevissimis, stylo glabro involucro longiore.

Conocarpodendron; folio subrotundo, crasso, rigido, valdè nervoso; cono longo, variegato, ex rubro et flavo; flore aureo. *Boerh. Lugd. Bat. 2. p. 199. c. tab. bona respectu capituli, foliis vix convenientibus et potiùs ad P. compactam v. latifoliam pertinentibus: strobilo nucibus et flosculo ad calcem tabulæ jamjam ad Leucadendron retusum relatis.*

Scolymo-

Scolymocephalus foliis subrotundis glabris. *Weinm. Phyt.* 4. p. 294. tab. 902. b. a Boerh. icone mutuata omisso tamen strobilo.

Leucadendron, foliis subsessilibus cordato-ovatis imbricatis glabris. *Wuchend. Ultraj.* 204. caractere ab icone Boerh. desumpto.

Protea longiflora. *Lam. Illust. Gen.* 1. p. 234. n. 1211. *Poiret. Encyc. Botan.* 5. p. 640.*

Protea lacticolor. *Salisb. Parad.* 27.

Protea ochroleuca. *Smith. Exot. Bot.* 2. p. 43. t. 81.

HAB. In Africæ Australis montibus, prope Prom. B. Spei. (v. v. in Hort. Reg. Kew.)

*5. *P. coccinea*, foliis obovatis obtusissimis sessilibus venosis ramisque glabris, involucris bracteis interioribus spathulatis apice barbatis, stylo glabro, calycis aristis ferè longitudine laminarum : margine pilosis ; apice imberbibus.

HAB. In Africæ Australis montibus, prope Promont. B. Spei, Devil's Head : solo fertiliori. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* 4—5 pedes altus. *Rami* crassitie digiti. *Folia* lævia, glauca, per lentem punctis minutissimis depressiusculis conspersa ; dum 4 uncias longa, 2—3 uncias lata ; superiora basi quandòque semicordata ; summa capitulum æquantia. *Involucrum* sessile, solitarium, turbinatum, 4—5-unciale, bracteis extùs demum glabriusculis ; interiorum barbâ marginali, copiosâ, longâ, persistenti. *Calyx* inclusus, 2½ uncias longus ; *Unguibus* hirsutis ; *Laminis* dorso glabris, margine pilosis ; *Aristis* vix longitudine laminarum. *Stylus* compressus. *Stigma* subulatum ; inde exsulcum à stylo absque manifestâ curvaturâ continuum.

6. *P. spe-*

6. *P. speciosa*, foliis obovato-oblongis basi angustatis ramisque glabris, involucri bracteis omnibus sericeis: interioribus apice subdilatatis mediisque barbatis, stylo pubescenti, aristis calycis apice lanatis.

Scolymocephalus Africana foliis longis glabris, cono sericeo; squamis rubiginèâ villosâ cristâ ornatis. *Herm. Cat. Mt. Raj. Hist.* 3. *Dendr.* p. 9.

Lepidocarpodendron; folio oblongo, viridi, limbo rubro ornato; squamarum apice, et margine, lanuginosis. *Boerh. Lugd. Bat.* 2. p. 185. c. tab.

Scolymocephalus foliis longis, seu *Tulipifer latifolius*. *Weinm. Phyt.* 4. p. 288. t. 893. a. bona.

Scolymocephalus Africanus foliis angustis villosis. *Weinm. Phyt.* 4. p. 289. t. 894?

Bruckm. Epist. Itin. 2. p. 8. t. 3. capitulum.

Leucadendron speciosum. *Linn. Mant.* p. 36.* excl. syn. *Clusii*.

Protea speciosa. *Linn. Mant.* p. 191.

Protea Lepidocarpodendron β. *Linn. Syst. Veg.* xiii. p. 118.

Protea barbata. *Lam. Illust. Gen.* 1. p. 236. n. 1228.

Protea speciosa latifolia. *And. Repos.* 110. fortè huc pertinet monente D. Bellenden Ker; at pessima figura.

Protea speciosa. *Sims, Bot. Magaz.* 1183.

HAB. In Africæ Australis montibus, prope Prom. B. Spei. (v. v. in Monte Tabulari.)

- *7. *P. macrophylla*, foliis elongato-oblongis marginatis venosis glabris basi subattenuatis, involucri bracteis omnibus tomentosis; intimis lingulatis imberbibus, calycis aristis hirsutis, stylo exsulco infra medium pubescente: apice curvato.

HAB.

HAB. In Africâ Australi, ad latera Montium Attaquas Kloof.

D. Niven. (v. s. in Herb. Hibbert.)

DESC. *Frutex* validus, 8—10 pedes altus. (*Niven.*) *Rami* glabri apice tomento brevissimo quasi rore canescenti obducti. *Folia* basi parùm attenuatâ tortâ; superiora longiora, involucrum longè superantia, spithamea, ultra pollicem lata. *Involucrum* bracteis omnibus obtusis incanis; extimis ovatis; mediis oblongis; intimis apice haud dilatato. *Calyx* involucro parùm longior; unguibus laminisque tomento albo villisque concoloribus patulis: *Aristis* longitudine laminarum, tomento albo villisque longis, patulis, nigro-purpureis, terminalibus subcrispatis.

8. *P. formosa*, foliis angusto-oblongis venosis obliquis: basi simplicibus; marginibus ramisque tomentosis, involucri bracteis ciliatis; intimis lingulatis imberbibus, calycibus aristisque tomentosis, stylo glabro apice curvato; stigmate apice incrassato.

Protea coronata. *And. Repos.* 469.

Erodendrum formosum. *Salisb. Parad.* 76.

HAB. In Africâ Australi. *D. Masson.* (v. s. in Herb. D. Aiton, e Hort. Reg. Kew.)

OBS. Affinitate proxima *P. compactæ*, foliis præsertim diversa.

9. *P. melaleuca*, foliis lineari-lingulatis marginatis ciliatis, ramis pilosiusculis, involucris elongato-turbinatis: bracteis albociliatis; exterioribus squarrosis; interioribus conniventibus spathulatis dorso nigro-tomentosis.

Lepidocarpodendron; folio saligno, viridi; nervo et margine flavo;

flavo ; cono longo, superiore parte maximè clauso. *Boerh. Lugd. Bat.* 2. p. 189.* c. tab. ?

Scolymocephalus seu *Lepidocarpodendron* frutice conifero. *Weinm. Phyt.* 4. p. 291. t. 898 ? diversa tamen bracteis intimis viridibus fortè e descriptione in *Cod. Witsen. pictis*.

Protea coronata. *Lam. Illustr. Gen.* 1. p. 236. n. 1227 ? exclus. syn. priore *Boerhaavii*. *Poiret. Encyc. Botan.* 5. p. 645 ? desc. conveniente.

Protea speciosa nigra. *And. Repos.* 103.

Protea Lepidocarpon. *Ker in Bot. Mag.* 674.

HAB. In Africâ Australi, prope Prom. B. Spei.

Obs. Species, ex figuris recentioribus huc citatis, nec non e pulcherrimâ ineditâ D. Franc. Bauer, quæ omnes inter se exactè conveniunt, distincta videtur, at quoniam specimina his respondentia nondum vidi, haud sine hesitatione a sequente separavi.

10. *P. Lepidocarpon*, foliis lincari-lingulatis marginatis scabriusculis nitentibus ramisque glabris, involucris bracteis interioribus spathulatis dorso marginibusque nigro-barbatis, calycis aristis intùs pennatis, stylo pubescenti.

Scolymocephalus Africana, foliis longis glabris, cono variegato resinifero. *Herm. Cat. Mt.*

Scolymocephalus Africana, cono variegato resinifero. *Raj. Hist.* 3. *Dendr.* p. 9.

Lepidocarpodendron ; foliis angustis, longioribus, salignis ; calycis squamis elegantissimè ex flavo fusco albo nigro variegatis ; florum plumulis atro-purpureis. *Boerh. Lugd. Bat.* 2. p. 188. c. tab.

Scolymocephalus Africana, foliis longis, cono variegato. *Weinm. Phyt.* 4. p. 289. t. 895.

Protea

Protea foliis lanceolatis integerrimis glabris calycinis supernè villosis. *Roy. Lugd. Bat.* 186.

Leucadendron *Lepidocarpodendron* α. *Linn. Sp. Pl. ed. i. p. 91. ed. ii. p. 134. Berg. Act. Stockh.* 1766. p. 322.

Protea *Lepidocarpodendron*. *Linn. Mant.* 190.* desc. opt. nullo tamen specimine in Herb.

Protea *Lepidocarpodendron* α. *Linn. Syst. Veg.* xiii. p. 118.

Protea speciosa. *Thunb. Diss. n. 53.* Prod. 27. Willd. Sp. Pl. 1. p. 531.*

Protea cristata. *Lam. Illustr. Gen. 1. p. 235. n. 1226. Poir. Encyc. Botan. 5. p. 644. exclus. syn. Roy. Linn. et Andr.*

Protea grandiflora var. foliis undulatis. *And. Repos.* 301?

HAB. In Africæ Australis montibus, prope Prom. B. Spei. (v. v. in Monte Tabul.)

- *11. *P. neriifolia*, foliis lineari-lingulatis lævibus opacis margine subsimplicibus basi extùs ramisque tomentosis, involucri bracteis interioribus apice parùm latioribus dorso argenteo-sericeo margine nigro-barbato, calycis aristis laminas superantibus intùs pennatis, stylo pubescenti.

Cardui generis elegantissimi cujusdam caput. *Clus. Exot.* 38.* fig. xv.

HAB. In Africâ Australi, ad radices montium prope Prom. B. Spei. (v. s. in Herb. Soc. Linn.)

OBS. I. Quam maximè affinis *P. Lepidocarpo*, at distincta videtur.

OBS. II. Synonymon Clusii huc retuli ob descriptionem optimè convenientem.

12. *P. pulchella*, foliis lineari-lingulatis marginatis nitentibus scabrusculis,

briusculis, ramis parùm tomentosís, involucri bracteis interioribus apice lanceolato-dilatato sericeo marginibus nigro barbatis, calycis aristis vix longitudine laminarum, stylo pubescenti.

Protea pulchella. *And. Repos.* 270. bona quoad capitulum, sed folia opaca margine ciliata.

Protea speciosa var. *foliis glabris*. *And. Repos.* 277. optima respectu capituli et foliorum nitore quæ autem margine concolori diversa.

Protea pulchella var. *speciosa*. *And. Repos.* 442. differt figura bractearum interiorum aristisque calycis laminâ longioribus.

HAB. In Africæ Australis montibus, prope Stellenboch. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks. et Soc. Linn.)

13. *P. patens*, foliis angusto-oblongis subundulatis marginatis basi subattenuatis, ramisque villosis procumbentibus, involucro hemisphærico : bracteis sericeis ; interiorum barba nigro-purpurea, stylo infrà pubescenti, calycis aristis longitudine laminarum.

Protea speciosa patens. *And. Repos.* 543.

HAB. In Africæ Australis montibus saxosis, prope Wilde River. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* procumbens. (*Niven.*) *Rami* tomentosi et villis patulis brevibus incani. *Folia* secunda, frequentia, obtusiuscula, venosa, 4—5 uncias longa, 7—9 lineas lata. *Involucrum* sessile, magnitudine pugni minoris : *Bracteis* obtusis, albo-sericeis, concaviusculis, interioribus nec dilatatis nec angustatis mediisque barbâ nigro-purpureâ instructis. *Calyx* sesquiuncialis albo-lanatus, aristis apice purpureis.

Stylus

Stylus basi compressâ tomentosâ suprâ subulatus et infra medium pube rarâ, suprâ glaber, apice curvato. *Stigma* acutiusculum.

- *14. *P. incompta*, foliis lingulato-oblongis: summis ramisque hirsutis, involucri bracteis interioribus apice orbiculato-dilatato margine barbato, calycis lanati aristis longitudine laminarum, stylo glabro apice simplici.

Protea foliis lanceolatis integerrimis glabris calycem succingentibus hirsutis. *Roy. Lugd. Bat.* 186? exclus. syn. Boerh. t. 189.

HAB. IN Africâ Australi. *Oldenburgh*: prope Wynberg. *Gul. Roxburgh M. D.* (v. s. sub eodem nomine in *Herb. Banks.*)

DESC. *Frutex* erectus. *Rami* hirsutissimi villis longis patulis. *Folia* frequentia, modicè patentia, 4 uncias longa, 1 unciam lata, venosa, basi obtusa, marginibus simplicibus; callo apicis acuto, recurvo; inferiora glabra; summa angustiora, capitulum paulò superantia. *Involucrum* turbinatum, 4 uncias longum, bracteis tomentosis; exterioribus mediisque oblongis, imberbibus; interioribus barbâ marginali, albâ. *Calyx* lanâ albâ, implexâ.

15. *P. longifolia*, foliis elongato-linearibus basi attenuata, involucri turbinati bracteis glabris acutis imberbibus, calycis aristis laminâ longioribus, stylo pubescenti apice curvato.

Lepidocarpodendron; foliis angustis, longis, salignis nervo rubro; florum plumis violaceo-purpureis. *Boerh. Lugd. Bat.* 2. p. 186.* c. tab.

Protea longifolia nigra. *And. Repos.* 132.

Protea longifolia var. cono turbinato. *And. Repos.* 144.

Protea longifolia ferruginoso-purpurea. *And. Repos.* 133.

Protea *Lepidocarpodendron*. *Herb.* Linn.*

HAB. In Africâ Australi, prope Prom. B. Spei. *Oldenburgh.*
(v. s. in *Herb. Banks.*)

16. *P. mellifera*, foliis lanceolato-lingulatis basi attenuatis, involucrio turbinato: bracteis glabriusculis imberbibus viscidis, aristis calycis albo-lanatis longitudine laminarum, stylo glabro: apice simplici.

Scolymocephalus *Africana*, foliis longis acutioribus hirsutis, cono mellifero. *Herm. Cat. Mt.*

Conifera *Alypi* folio seminibus pennatis, pluribus in medio coni conglomeratis, et non inter squamas aliorum conorum more nascentibus! *Sloane in Philos. Trans.* 17. p. 666.* c. tab.

Scolymocephalus *Africana*, foliis angustis villosis, cono mellifero. *Raj. Hist.* 3. *Dendr.* p. 9.

Lepidocarpodendron; foliis angustis, brevioribus, salignis; calycis squamis elegantissimè ex roseo aureo albo atro-rubro variegatis; florum plumis albis. *Boerh. Lugd. Bat.* 2. p. 187. c. tab.

Scolymocephalus seu *Lepidocarpodendron* folio saligno. *Weinm. Phyt.* 4. p. 289. t. 896.

Protea caule multifloro calycibus oblongis foliis lanceolatis integerrimis. *Roy. Lugd. Bat.* 185.

Leucadendron repens α. *Linn. Sp. Pl. ed. i.* p. 91. *ed. ii.* p. 135.

Leucadendron repens. *Berg. Act. Stockh.* 1766. p. 322.

Protea repens. *Linn. Mant.* 189.* *Syst. Veg.* xiii. p. 118.

Protea mellifera. *Thunb. Diss. n.* 37.* *Prod.* 26. *Lam. Illust. Gen.* 1. p. 236. n. 1229. *Salisb. Prod.* 49. *Willd. Sp. Pl.* 1. p. 522. *Poiret. Encyc. Botan.* 5. p. 646. *Curt. Mag.* 346. *Wend. Hort. Herenh.* 13.

HAB. In Africæ Australis collibus et campis, prope Prom. B. Spei,

B. Spei, gregatim quandoque crescens. (v. v. prope Constantiam.)

17. *P. grandiflora*, foliis oblongis sessilibus ramisque glabris, involucro hemisphærico imberbi nudiusculo, calyce tomentoso; unguibus dorso glabriusculis; aristis brevissimis, stylo glabro.

Scolymocephalus foliis oblongis glabris crassioribus latioribus.

Herm. Cat. Mt.

Lepidocarpodendron; folio saligno lato; caule purpurascente.

Boerh. Lugd. Bat. 2. p. 183. c. tab.*

Scolymocephalos foliis oblongis. *Weinm. Phyt. 4. p. 28. t. 891.*

Protea foliis lanceolatis integerrimis flore patente glabro stylis longissimis. *Roy. Lugd. Bat. 186.*

Protea cinaroides β. *Linn. Sp. Pl. ed. i. p. 92. ed. ii. p. 136.*

Protea grandiflora. *Thunb. Diss. n. 51.* Prod. 27. Willd. Sp. Pl. 1. p. 530. Lam. Illust. Gen. 1. p. 234. n. 1210? Poirét.*

Encyc. Botan. 5. p. 640?

- β. *Protea marginata.* *Lam. Illust. Gen. 1. p. 235. n. 1225.*

HAB. In Africæ Australis collibus et montibus, frequens. (v. v. in Monte Tabulari.)

OBS. Variat involucro penitùs glabro bracteisque exterioribus albo-tomentosis. *Folia* quandoque lineari-oblonga et tunc ab icone *P. abyssinica* haud distinguenda.

18. *P. Abyssinica*, foliis lanceolato-lingulatis obtusiusculis basi subangustatâ, involucro hemisphærico: bracteis obtusis imberbibus, calyce tomentoso; aristis brevissimis, receptaculo villosa? caule arborescenti.

Gagedi. *Bruce Abyss. 5. p. 52. c. tab. duab.*

Protea

Protea abyssinica. Willd. *Sp. Pl.* 1. p. 522.

HAB. In Abyssiniâ, Lamalmon. Bruce l. c.

19. *P. Scolymus*, foliis lineari-lanceolatis acutis submucronatis basi attenuatis, involucro hemisphærico; bracteis glabris obtusis, calycibus muticis, receptaculo villosa, caule ramoso multifloro.

Thymelæa capitata rapunculoides æthiopica saligneis foliis perianthio magno conformi squamoso. *Pluk. Mant.* 181. t. 440. f. 1. mala.

Scolymocephalus fruticis Æthiopici coniferi Breynii foliis; capite majore squamato. *Raj. Hist.* 3. *Dendr.* p. 10.

Lepidocarpodendron; acaulon; ramis numerosis e terrâ excrecens, calyce floris immaturo extûs ex rubro et flavo variegato intûs flavo. *Boerh. Lugd. Bat.* 2. p. 192. c. tab.

Scolymocephalus foliis angustis longis. *Weinm. Phyt.* 4. p. 288. t. 893. f. b.

Leucadendron Scolymocephalum. *Linn. Sp. Pl. ed. i.* p. 92. *ed. ii.* p. 135. *Berg. Act. Stockh.* 1766. p. 323.

Protea Scolymus. *Thunb. Diss. n.* 36.* *Prod.* 26. *Lam. Illustr. Gen.* 1. p. 236. n. 1231. *Willd. Sp. Pl.* 1. p. 522. *Poiret. Encyc. Botan.* 5. p. 647. *And. Repos.* 409. *Wend. Sert. Hanov.* t. 20. *Sims, Bot. Mag.* 698.

Protea angustifolia. *Salisb. Prod.* 49.

HAB. In Africæ Australis ericetis elevatioribus, prope Prom. B. Spei. (v. v. in Hort. Angl.)

20. *P. mucronifolia*, foliis lanceolato-linearibus mucronatis pungentibus basi obtusa, bracteis involucris lanceolatis mucronatis glabris, caule erecto multifloro.

Protea

Protea mucronifolia. *Salisb. Parad.* 24. *Sims, Bot. Mag.* 933.
And. Repos. 500.

Protea odoratissima. *Masson. in Herb. Ait.*

HAB. In Africâ Australi. *Masson.* In arenosis prope Berg.
 - River. *Niven.* (v. v. in *Hort. Hibbert.*)

21. *P. nana*, foliis subulatis mucronatis, involucris nutantibus
 hemisphæricis ; bracteis glabris obtusis.

Thymelæa æthiopica abietiformis floribus phœniceis. Pluk.
Mant. 180.

Leucadendron nanum. Berg. Act. Stockh. 1766. p. 325.* *Berg.*
Cap. 22.* exclus. syn. *Petiv. ad feminam Aulacis pinifoliæ*
jam citato.

Protea rosacea. Linn. Mant. p. 189.* *Syst. Veg.* xiii. p. 118.

Protea nana. Thunb. Diss. n. 29.* *Prod.* 26. *Hort. Kew.* 3.
p. 484. *Willd. Sp. Pl.* 1. p. 519.

Protea rosacea. Lam. Illust. Gen. 1. p. 238. n. 1251. *Poiret.*
Encyc. Botan. 5. p. 653. *Smith, Exot. Bot.* 1. p. 85. t. 44.

Protea acuiifolia. Salisb. Parad. 2.

HAB. In Africæ Australis montosis ; prope Roode Zant Cas-
 cade. (v. s. in *Herb. Linn. a Bergio.*)

OBS. Nomen Ccl. *Bergii* utpotè primum, nec ineptum et a
Thunbergio, Dryandro et Willdenovio receptum, prætuli.

- *22. *P. pendula*, foliis lineari-lanceolatis mucronulatis : termina-
 libus ramorum floriferorum recurvorum reclinatis, bracteis
 involucris obtusis demùm glabriusculis.

HAB. In Africâ Australi. *Masson.* (v. s. in *Herb. Banks.*)

DESC. *Frutex* erectus. *Rami* teretes, glabri ; ultimi tenuissimè
 tomentosi : floriferi supra medium recurvi. *Folia* sparsa,
 passim

passim subopposita, frequentia, modicè patentia; extra medium parùm latiora, obtusa, mucronulo patenti, marginibus subrecurvis, glauca, compacta, adulta glaberrima, sesquiunciam longa. *Involucra* pendula, solitaria, hemisphærica, magnitudine Pruni: *Bracteis* arcuè imbricatis, imberbibus exutâ pube tenuissimâ sericeâ demùm glabriusculis; interioribus sensim longioribus. *Calyces* inclusi, submutici, laminis barbatis. *Stylus* glaber, vix uncialis, apice simplici.

23. *P. tenax*, foliis lineari-lanceolatis planis: basi attenuatis; margine scabriusculis, ramis decumbentibus, involucri hemisphærico sericeo obtuso, calycis (uncialis) unguibus glabriusculis: aristis lanatis laminâ dimidio-brevioribus.

Erodendrum tenax. *Salisb. Parad.* 70.

HAB. In Africæ Australis depressis, Lange Kloof. *D. Niven.* (v. s. in *Herb. Soc. Linn.*)

DESC. *Frutex* diffusus. *Rami* glabri v. hirsuti. *Folia* 4—6 uncias longa, 4—6 lineas lata, acuta, uninervia, venis obsoletis, minutè punctulata, scabriuscula; ramorum subsecunda. *Involucrum* bracteis concavis, tenuissimè ciliatis, exterioribus ovatis; interioribus oblongis. *Calyx* unguibus suprâ pilosiusculis; laminis dorso nudiusculis. *Stylus* glaber, apice simplici.

24. *P. canaliculata*, foliis linearibus aveniis lævibus: suprâ concaviusculis; ramisque glabris decumbentibus, involucri obtuso: bracteis interioribus subsericeis, calycis unguibus glabris: aristis penicillatis laminæ dimidio brevioribus.

Protea canaliculata. *And. Repos.* 437.

HAB. In Africæ Australis depressis arenosis, Lange Kloof. *D. Niven.* (v. s. in *Herb. Lambert.*)

DESC.

DESC. *Frutex* subdecumbens. (Niven.) *Folia* frequentia, 4—6 uncias longa, vix duas lineas lata, acuta. *Involucrum* magnitudine pruni, *Bracteis* concavis; exterioribus glabris; interioribus brevissimè ciliatis. *Calyx* uncialis, unguibus laminisque glabris: *Aristis* albo-barbatis. *Stylus* glaber apice simplici.

25. *P. acaulis*, caulibus abbreviatis ramis depressis, foliis ovato-oblongis marginatis venosis basi attenuatis, involucris hemisphæricis inclinatis; bracteis obtusis glabris, calycibus muticis.

Scolymocephalus Africana foliis oblongis glabris humilis et procumbens. *Herm. Cat.* 19.

Scolymocephalus Africanus Lauri folio humilis et procumbens. *Raj. Hist.* 3. *Dendr.* p. 9.

Lepidocarpodendron; *acaulon*; foliis paucis, latis, nervo et marginibus rubris ornatis; fructu parvo. *Boerh. Lugd. Bat.* 2. p. 191.* c. tab.

Scolymocephalus s. *Lepidocarpodendron acaulon*. *Weinm. Phyt.* 4. p. 291. t. 898. b. bonâ.

Protea caule unifloro foliis lanceolatis. *Roy. Lugd. Bat.* 186.

Leucadendron acaulon. *Wachend. Ultraj.* 204. *Linn. Sp. Pl.* ed. i. p. 92. ed. ii. p. 135.* *Syst. Nat.* xii. t. 2. p. 110. omissa in *Mant. et Syst. Veg.* xiii.

Protea acaulis. *Thunb. Diss. n.* 49.* *Prod.* 27. *Willd. Sp. Pl.* 1. p. 529.

Protea nana. *Lam. Illustr. Gen.* 1. p. 233. n. 1208. *Poirët. Encyc. Botan.* 5. p. 639.

Protea glaucophylla. *Salisb. Parad.* 11.

HAB. In *Africae Australis* collibus, prope Promont. B. *Speci.* (v. v. juxta Simons Bay.)

- *26. *P. elongata*, caulibus nanis, foliis elongato-lanceolatis (pedalibus) planis marginatis venosis lævibus; basi valdè attenuata lineari, involucro hemisphærico inclinato; bracteis glabris obtusis, calycibus brevissimè aristatis.

HAB. In Africæ Australis humidis elevationibus. Roode Zant Cascade. *D. Niven.* (v. s. in Herb. Hibbert.)

Obs. Niinis affinis *P. acauli*.

- *27. *P. angustata*, caulibus nanis, foliis lanceolato-linearibus planis, marginatis venosis lævibus, involucro hemisphærico inclinato: bracteis glabris obtusis, calycibus muticis: unguibus extùs glabris margine lanatis.

HAB. In Africæ Australis montosis solo fertiliori; Hout Hoek. *D. Niven.* (v. s. in Herb. Hibbert.)

Obs. An species distincta a *P. acaule*?

- *28. *P. revoluta*, caulibus nanis, foliis canaliculato-semiteretibus lævibus, involucro hemisphærico inclinato: bracteis glabris obtusis, calycibus muticis: unguibus extùs glabris margine lanatis.

HAB. In Africæ Australis montibus aridis. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* humilis, basi divisus. *Rami* adscendentes, glabri, vix longitudine foliorum. *Folia* 6—9 uncias longa, acuta, impunctata, marginibus recurvis, simplicibus, canaliculata, infra medium teretiuscula parùmque attenuata. *Involucrum* brevissimè pedunculatum magnitudine pruni minoris. *Calycis* laminæ sericeæ. *Stylus* glaber, apice simplici.

- *29. *P. tenuifolia*, caulibus nanis, foliis canaliculato-semiteretibus
scabris,

scabris, involucri hemisphærico : bracteis tomentosis, calycis unguibus laminisque hirsutis : aristis brevissimis.

HAB. In Africæ Australis montibus sterilibus. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Folia* numerosa, punctis elevatis utrinque scabra, marginibus revolutis canaliculata, basi planiuscula, spithamea v. dodrantalia. *Involucrum* erectum, sessile, magnitudine pomi minoris, tomento ferrugineo tardiùs deciduo. *Calyx* sesquiuncialis laminarum villis brevioribus, aristis (mucronibus potiùs) duabus lamina quadruplo brevioribus. *Stylus* glaber, apice simplici.

*30. *P. lævis*, caulibus nanis decumbentibus, foliis elongato-linearibus lævibus aveniis marginibus recurvis, involucri hemisphærico : bracteis obtusis subsericeis, calycibus subuncialibus muticis.

HAB. In Africâ Australi. *D. Masson.* (v. s. in Herb. Banks.)

DESC. *Caulis* brevissimus, decumbens (*Masson.*) glaber. *Folia* secunda, glauca, spithamea, acuta, marginibus lævibus non incrassatis, basi attenuata plana. *Involucrum* sessile, erectum, magnitudine pomi minoris ; *Bracteis* primùm subsericeis, demùm glabriusculis, marginibus brevissimè ciliatis. *Calyx unguibus* extùs glabriusculis, margine lanatis ; *Laminis* villosis.

*31. *P. scabra*, caulibus nanis, foliis elongato-linearibus scabris obsoletè venosis, margine subrecurvis, involucri turbinato-hemisphærico : bracteis obtusis tomentosis, unguibus calycis hirsutis : aristis laminâ dimidio brevioribus.

HAB. In Africâ Australi, prope Promont. B. Spei. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Caulis* semisepultus, divisus, ramis adscendentibus, folio brevioribus. *Folia* conferta, erecta, spithamea, vix pedalia, 3—4 lineas lata, apice acuto sphacelato, uninervia, obsolete venosa, utrinque tuberculis pustuliformibus scabra, aliisque minutissimis conspersa, basi attenuatâ petioliformi lævi. *Involucrum* sessile, erectum, magnitudine pomi minoris; *Bracteis* tomento ferrugineo demùm subdeciduo. *Calyx* vix semuncialis; laminis hirsutis; aristis villis flexuosis cinereis ferrugineisve.

Obs. In Herbario D. Hibbert plantam vidi Foliis planis elongato-lanceolatis; Involucris turbinatis; Calycibus albo-lanatis aristarum lana longiore magisque implexa; Stylo biunciali, vix arcuato: an distincta species?

32. *P. repens*, caulibus nanis, foliis elongato-linearibus scabriusculis margine revolutis, involucro turbinato: bracteis obtusis tomentosis: interioribus margine lanatis, calycibus biuncialibus; unguibus hirsutis; aristis laminâ brevioribus, stylo apice simplici.

Lepidocarpodendron; foliis longissimis, angustissimis, fructum elegantissimè ex rubro flavo et albo variegatum instar coronæ succingentibus; radice repente. *Boerh. Lugd. Bat. 2. p. 190*. c. tab.*

Scolymocephalus s. Lepidocarpodendron foliis longissimis. *Weinm. Phyt. 4. p. 290. t. 897. a.*

Protea caule unifloro calyce oblongo foliis linearibus longissimis. *Roy. Lugd. Bat. 185.*

Leucadendron, foliis longissimis obtusè trigonis longitudine florem superantibus. *Wachend. Ultraj. 204.*

Leucadendron repens β . *Lin. Sp. Pl. ed. i. p. 92. ed. ii. p. 135.*

Protea

Protea repens. Thunb. Diss. n. 33.* Prod. 26. Lam. Illust. 1. p. 236. n. 1230. Willd. Sp. Pl. 1. p. 523. Poirct. Encyc. Botan. 5. p. 646.

HAB. In Africæ Australis campis arenosis prope Prom. B. Spei. (v. s. in Herb. Banks.)

OBS. Varietas? foliis vix punctatis, sesquipedalibus.

*33. *P. lorea*, caulibus nanis, foliis teretibus elongatis lævibus, involucrio turbinato sub-pedunculato: bracteis acutiusculis sericeis, calycis unguibus extus glabris: aristis laminâ brevioribus, stylo apice curvato.

HAB. In Africâ Australi, prope Promont. B. Spei. D. Masson. (v. s. in Herb. Banks.)

DESC. Caulis brevissimus, semisepultus. Folia numerosa, pedalia, crassitie fili ligaterii. Involucrum pedunculo brevissimis squamis arcuè imbricatis tecto: Bracteis exterioribus ovatis acutiusculis, interioribus oblongo-linearibus. Calyx Unguibus Laminisque extus Aristis undique lana brevi densa alba crispata. Stylus glaber.

34. *P. turbiniflora*, caulibus nanis, foliis elongato-lanceolatis marginatis subundulatis lævibus, involucrio subturbinato: bracteis tomentosis obtusis, calycis aristis longitudine laminarum: lana apicis longiore crispa.

Erodendrum turbiniflorum. Salisb. Parail. 103.

Protea cæspitosa. And. Repos. 526.

HAB. In Africæ Australis montibus; in humidis solo fertiliori. D. Niven. (v. s. in Herb. Hibbert.)

DESC. Caules cæspitosi, abbreviati, divisi, erecti. Folia uninervia, venosa, juniora villosa, adulta glabra, nitida, minutissimè punctata, acutissima, basi valdè attenuatâ petioli-formi,

formi, spithamea, vix pedalia, unciam circiter lata ; extima ramorum nana, biuncialia, basi vix attenuata, membranacea, subscariosa. *Involucrum* sessile, vix biunciale : *Bracteis* subincanis, ciliatis, interioribus apice lanatis. *Calyx* unguibus laminisque lauatis : *Aristis* curvatis, albo-lanatis, lanâ terminali fulvâ. *Stylus* glaber, apice levissimè curvato.

- *35. *P. Scolopendrium*, caulibus nanis, foliis elongato-lanceolatis marginatis lævibus, involuero turbinato : bracteis lanceolatis acuminatis apice tomentosis, aristis calycis lamina dimidio brevioribus.

HAB. In Africâ Australi, Wintershoek. *D. Joh. Roxburgh.* (v. s. in Herb. Lambert.)

DESC. *Caulis* foliis aliquoties brevior. *Folia* pedalia, sesquiunciam vix duas uncias lata, costâ subtùs eminente, venis ramosis minutissimè punctata, basi valdè attenuata. *Involucra* subsessilia, solitaria v. bina, quandoque tres uncias longa : *Bracteis* interioribus apice tomento persistente cinereis. *Calyx* lanatus. *Stylus* glaber, infra medium dilatatus. *Ovarii* barba alba.

†† *Flores laterales.*

36. *P. cordata*, floribus lateralibus, foliis cordatis subrotundis nervosis, bracteis involucri glabris.

Protea cordata. *Thunb. Diss. n. 60.* tab. 5. bona. Prod. 28. Lam. Illustr. Gen. 1. p. 233. n. 1207. Willd. Sp. Pl. 1. p. 534. Poirct. Encyc. Botan. 5. p. 639. And. Repos. 289.*

Protea cordifolia. *Sims, Bot. Mag. 649.*

HAB. In Africæ Australis montibus, Hottentots Holland et prope Fluvium Zonder End. *Thunb. l. c.* (v. s. in Herb. Banks.)

37. *P. am-*

37. *P. amplexicaulis*, floribus lateralibus, foliis cordatis ovatis amplexicaulibus divaricatis apice recurvis, bracteis involucri pubescentibus.

Erodendrum amplexicaule. *Salisb. Parad.* 67.

Protea repens. *And. Repos.* 453.

HAB. In Africâ Australi. *D. Masson.* (v. s. in *Herb. Banks.*)

38. *P. humilis*, floribus lateralibus, foliis linearibus acutis, (biuncialibus,) receptaculo conico: paleis acutis.

Protea humiflora. *And. Repos.* 532.

HAB. In Africâ Australi. *D. Masson.* (v. s. in *Herb. Banks.*)

DESC. *Caulis* nanus. *Rami* glabri. *Folia* plana, fere 3 uncias longa. *Involucra* hemisphærica, bracteis obtusis, interioribus apice pube adpressâ ferrugineâ.

- *39. *P. acerosa*, floribus lateralibus, foliis subulatis, receptaculo convexiusculo: paleis obtusis.

HAB. In Africâ Australi. *D. Masson.* (v. s. in *Herb. Banks.*)

DESC. *Caulis* brevis. *Rami* erecti, glabri. *Folia* lævia. *Involucra* ramea, subaggregata, breviter pedunculata; *Bracteis* obtusis, interioribus pube diutiùs persistenti subsericeis. *Calyx* muticus, apice barbato. *Receptaculi* paleæ connatæ. *Squamule hypogynæ* subulatæ.

Obs. Varietas? Foliis longioribus (sesquiuncialibus) semiterebibus in Herbario et Hort. D. Hibbert vidi, quæ secundum *D. Niven.* 3—4 pedes alta in montosis solo fertiliori prope Zonder End. lecta. Hæc *Protea* virgata. *And. Repos.* 577.

6. LEUCOSPERMUM.

LEUCADENDRUM. *Salisb. Parad.* *Proteæ* sect. 3. *Linn. Mant.*

CONOCARPODENDRA (spuria 196 et 198). *Boerh. Lugd.*

CHAR.

CHAR. GEN. *Calyx* irregularis, labiatus, unguibus tribus (raro omnibus) coherentibus, laminis staminiferis distinctis. *Stylus* filiformis, deciduus. *Stigma* incrassatum, glabrum (nunc inæquilaterale). *Nux* ventricosa, sessilis, lævis. *Capitulum* indefinitè multiflorum : *Involucro* polyphylo imbricato.

HABITUS. Frutices sæpe humiles, quandoque arborescentes, plerique tomentosi v. hirsuti. Folia integra v. apice callosodentata. Capitula terminalia; Floribus flavis, modò imbricatis bracteis distinguuntibus persistentibus induratis; modò fastigiatis receptaculo planiusculo, paleis angustis, non mutatis, subdeciduis.

† *Capitulum* amentaceum; *Bracteis* propriis persistentibus subinduratis.

1. L. *lineare*, stylo calycem hirsutum superante, stigmatè hinc gibboso, involucro tomentoso, foliis linearibus integris; callo apicis subbarbato, ramis glabris.

Protea linearis. Thunb. Diss. n. 35.* tab. 4. pedunculo insolitè elongato stylisque apice nimis arcuatis. Thunb. Prod. 26. Lam. Illust. Gen. 1. p. 237. n. 1241. Willd. Sp. Pl. 1. p. 521. Poir. Encyc. Botan. 5. p. 650.

HAB. In Africæ Australis arenosis. Paarl, Drakenstein, Stellenboch. (v. s. in Herb. Banks. Lambert. Soc. Linn.)

Obs. Folia sæpiùs canaliculata marginibus inflexis, nunquam reflexis, callo apicis villis albis diu tecto; dum plana obsolete striata marginibus scabriusculis; rarissimè 2—3-dentata.

- *2. L. *attenuatum*, stylo calycem hirsutum superante, stigmate subæquilaterali, foliis cuneato-linearibus tridentatis aveniis basi attenuata, involucris ramisque tomentosis.

HAB. In Africæ Australis arenosis elevationibus inter saxa; Zwellendam.

Zwellendam. *D. Niven.* (v. s. in Herb. Banks. Lambert. Hibbert.)

DESC. *Frutex* erectus, tripedalis. *Rami* stricti, crassitie pennæ anserinæ, incani. *Folia* glaberrima, lævia, basi uninervi vix tortâ, crassa, rarè 5-dentata, sesquiuncialia, biuncialia. *Capitula* solitaria v. gemina, breviter pedunculata, obovata, magnitudine pruni majoris. *Bractee involucri* ovatæ, acuminate, arcuè imbricatæ; *pedunculi* patulæ. *Stylus* calyce unam quartam longior. *Stigma* conico-ovatum.

Obs. Hujus Varietas? insignis. Foliis latoribus, apice profundè tridentatis, dentibus lateralibus sæpissimè bi-intermedio tri-dentatis. Ramulis præter tomentum incanum villis patulis brevibus. (v. s. in Herb. Hibbert.)

3. *L. Tottum*, stylo calycem hirsutum $\frac{1}{2}$ superante, stigmate hinc gibboso, foliis lineari-oblongis sub-integris venosis basi obtusâ, bracteis involucri glabris ciliatis.

Protea Totta. *Linn. Mant.* 191.* fide spec. in illius Herb. *Thuub. Diss. n.* 54.* *Prod.* 27. *Lam. Illustr. Gen.* 1. p. 235. n. 1224. *Willd. Sp. Pl.* 1. p. 532. *Poiret. Encyc. Botan.* 5. p. 644.

HAB. In Africæ Australis montosis; Roode Zant Cascade. (v. s. in Herb. Linn., Banks., &c.)

Obs. *Frutex* subdecumbens (secund. *D. Niven.*) *Rami* sæpiùs hirsuti, quandoque glabri. *Folia* interdum 2—3-dentata, venis obsoletis. *Calyces* bracteis triplo longiores. *Stigma* indivisum.

- *4. *L. medium*, stylo calycem hirsutum ferè bis superante, stigmate hinc gibboso, foliis lineari-oblongis integris passimque 2—3-dentatis: callis acutis; basi obtusâ, bracteis involucri tenuissimè pubescentibus ciliatis, capitulis cernuis.

Protea formosa. *And. Repos.* 17? quæ differt tamen, Foliis longioribus, Calycibus unilabiatis unguibus omnibus longitudinaliter cohærentibus, Bracteis involucri sphacelatis, Stigmate ovato-oblongo vix gibboso.

HAB. In Africæ Australis montibus. (v. s. in *Herb. Soc. Linn.*)

OBS. Species inter *L. Tottum* et *ellipticum* media, illo foliis, hoc floribus ferè exactè conveniens.

5. *L. ellipticum*, stylo calycem hirsutum ferè bis superante, stigmate conico-ovato hinc gibboso, foliis oblongis 3—4-dentatis; basi obtusis; biuncialibus: bracteis involucri tenuissimè pubescentibus ciliatis, capitulis erectis.

Protea elliptica. *Thunb. Diss. n.* 15.* *Prod.* 26. *Willd. Sp. Pl.* 1. p. 512.

Protea vestita. *Lam. Illustr. Gen.* 1. p. 239. n. 1259?

Protea conocarpa A. *Poiret. Encyc. Botan.* 5. p. 657?

HAB. In Africæ Australis montibus. (v. s.)

OBS. Calli apicis foliorum obtusiusculi.

- *6. *L. nutans*, stylo calycem supra sericeum bis superante, stigmate obliquo turbinato! involucri bracteis tomentosis incanis, capitulis nutantibus, foliis ovatis oblongisve 3—5-dentatis; basi obtusis.

α. Foliis subovatis cordatis vix sesquiuncialibus.

β. Foliis lineari-oblongis basi simplicibus, 2—3 uncias longis.

HAB. In Africæ Australis montibus. *Masson.* (v. s. α. in *Herb. Banks.*, β. in *Herb. Lambert.*)

OBS. Distincta stigmate obliquo, apice depresso, axi longitudinali elevata.

Variat ramis tomentosis et hirsutis.

7. *L. Con-*

7. *L. Conocarpum*, stylo calycem villosissimum superante, stigmate subæquilaterali oblongo-conico, foliis ovalibus 3—9-dentatis, ramis bracteisque hirsutissimis.

Scolymocephalus africanus latifolius lanuginosus foliis in summitate crenatis. *Herm. Cat.* 20.

Leucadendro similis *Africana* arbor argentea folio summo crenaturis florida. *Plukn. Phyt. t.* 200. *f.* 2. folium, sed nux vix hujus generis.

Leucadendron, *africana* arbor argentea summo folio crenato. *Plukn. Alm.* 212.

Conophoros capitis *Bonæ Spei*, folio in summo dentato. *Raj. Hist.* 3. *App.* 240. *Petiv. Mus.* 172. fide spec. in *Herb. Petiv.*

Conocarpodendron; folio crasso, nervoso, lanuginoso, suprà crenato, ibique limbo rubro; flore aureo; cono facilè deciduo. *Böerh. Lugd. Bat.* 2. *p.* 196. *c. tab.* bona.

Scolymocephalus africanus folio crasso nervoso. *Weimm. Phyt.* 4. *p.* 292. *t.* 899. *f.* b.

Protea foliis oblongo-ovatis apice quinquedentato-callosis. *Roy. Lugd. Bat.* 184.

Leucadendron foliis ovatis obversis oblongis, margine calloso fimbriatis ad apicem crenatis. *Wachend. Ultraj.* 203.

Leucadendron Conocarpodendron. *Linn. Sp. Pl. ed. i.* *p.* 93. *ed. ii.* *p.* 136. *Syst. Nat. xii. t. 2.* *p.* 110. *Berg. Act. Stockh.* 1766. *p.* 321. Omiss. in *Linn. Mant. et Syst. Veg. xiii.*

Protea conocarpa. *Thunb. Diss. n.* 14.* desc. partim a *L. grandifloro* desumptâ. *Thunb. Prod.* 25. *Willd. Sp. Pl. 1.* *p.* 512. *Lam. Illust. Gen. 1.* *p.* 239. *n.* 1260. *tab.* 53. *f.* 3. mala, præcipuè floribus separatis. *Poiret. Encyc. Botan. 5.* *p.* 656.

HAB. In *Africæ Australis* campis et collibus sterilibus, prope Promont. *B. Spei.* (v. v. ad littora *Simon's Bay.*)

8. *L. grandiflorum*, stylo calycem villosissimum superante, stigmate æquilaterali oblongo-cylindræco, foliis oblongo-lanceolatis tridentatis integrisque, ramis hirsutissimis, bracteis involucri glabris ciliatis.

Leucadendron grandiflorum. *Salisb. Parad.* 116.

HAB. In Africæ Australis montosis. (v. s. in Herb. Banks. sub nomine *Proteæ villosiusculæ*.)

9. *L. puberum*, stylo calycem hirsutum superante, stigmate æquilaterali ovato, foliis lanceolatis ellipticisve integris uncia brevioribus pubescentibus, ramis hirsutis, bracteis involucri incano-villosis ellipticis longè acuminatis.

Protea pubera. *Linn. Mant.* 192.* fide spec. in illius Herb. exclusis synonymis. *Thunb. Diss.* n. 56.* *Prod.* 27. *Lam. Illustr. Gen.* 1. p. 234. n. 1216. *Willd. Sp. Pl.* 1. p. 533. excl. syn. *Bergii. Poiret. Encyc. Botan.* 5. p. 642.

HAB. In Africæ Australis summis montibus; Hottentot's Holland. (v. s. in Herb. Banks., Lambert.)

Obs. Variat foliis angusto-lanceolatis.

- *10. *L. buxifolium*, stylo calycem hirsutum superante, stigmate æquilaterali ovato, foliis ovalibus obtusis integris unguicularibus pubescentibus, ramis hirsutis, bracteis involucri orbiculato-ovatis breviter acuminatis glabriusculis ciliatis.

HAB. In Africæ Australis montibus. *Masson.* (v. s. in Herb. Banks.)

Obs. Proximum priori et fortè cum eo a Thunbergio confusum.

- *11. *L. patulum*, stylo calycem tomentoso-villosum superante, stigmate

stigmatæ æquilaterali ovato, foliis spathulato-linearibus integris: adultis glabris, ramis divaricatis tomentosis, capitulis pedunculatis.

HAB. In Africâ Australi. *Masson.* (v. s. in Herb. Banks.)

DESC. *Frutex* humilis, ramosissimus. *Folia* conferta, uncia breviora, basi angustata, callo apicis acutiusculo, summa tomentosa. *Capitula* magnitudine avellanæ; pedunculo tomentoso, bracteis lanceolatis; *Bracteæ* involucranter ovatæ, acuminatæ, tomentosæ, incanæ. *Calyx* tubulosus, bilabiatus, tomentosus, villisque brevibus patulis suprâ frequentioribus. *Stylus* 9 lineas longus. *Stigma* breve.

OBS. Valdè affinis *L. pubero*.

- *12. *L. spathulatum*, stylo calycem villosotomentosum superante, stigmatæ æquilaterali, foliis spathulatis basi lineari: adultis glabris uncialibus, ramis hirsutis patulis, capitulis pedunculatis, bracteis tomentosis acuminatis.

HAB. In Africâ Australi. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* humilis, ramosissimus. *Rami* villis brevibus, patulis tomento cinereo instructi. *Folia* elliptico-spathulata, basi attenuata, lineari, tortâ: callo apicis obtuso; obsolete venosa. *Capitulum* magnitudine juglandis minoris; *Bracteis* involucrantibus ovatis, acuminatis. *Calyces* villis brevibus, patulis densè tecti, laminarum decumbentibus, brevissimis. *Stylus* uncialis.

13. *L. tomentosum*, stylo sublongitudine calycis, caule erecto, foliis linearibus cuneatisve tridentatis tomentosis, bracteis lanceolatis tubum calycis subæquantibus.

Protea tomentosa. *Thunb. Diss. n. 18.* Prod. 26. Linn. Suppl.*

118. *Lam. Illust. Gen.* 1. p. 239. n. 1257. *Willd. Sp. Pl.* 1. p. 514. *Poiret. Encyc. Botan.* 5. p. 656.

α. foliis linearibus canaliculatis aveniis, ramis bracteisque tomentosis, calycis laminis barbatis.

β. foliis lineari-cuneatis planis subvenosis 3—5-dentatis, ramis hirsutis, bracteis calycisque laminis tomentosis.

Protea candicans. *And. Repos.* 294.

γ. foliis linearibus planis ramis hirsutis, bracteis glabriusculis ciliatis.

HAB. In Africæ Australis montibus, prope Promont. B. Spei. (v. s. in Herb. Banks., Lambert., et Soc. Linn.)

Obs. Plantæ pro varietatibus suprâ habitæ fortè species distinctæ.

14. *L. Hypophyllum*, stylo longitudine calycis, caule procumbente, foliis linearibus tridentatis, bracteis orbiculato-ovatis tomentosis tubo calycis dimidio brevioribus.

Thymelæa capitata *Rapunculoides Nerii* crassioribus foliis summo apice tridentatis æthiopica coniformi calyce squamato.

Plukn. Mant. 181. t. 440. f. 3.

Conophoros capensis folio angusto summo dentato. *Petiv. Mus.* 900. fide spec. in illius Herbar.

Scolymocephalos foliis angustis in summitate tridentatis. *Raj. Hist.* 3. *Dendr.* p. 9.

Conocarpodendron; folio rigido, angusto, apice tridentato rubro; flore aurco. *Boerh. Lugd. Bat.* 2. p. 198.* c. tab.

Scolymocephalus seu *Conocarpodendron* folio angusto. *Weinm. Phyt.* 4. p. 294. t. 902. f. a.

Protea foliis lanceolato-linearibus apice tridentato-callosis. *Linn. Hort. Cliff.* 29. Herb. Cliff. absque fructificatione.

Protea

Protea foliis lanceolatis linearibus apice tridentato callosis capitulis aphyllis. Roy. Lugd. Bat. 184. Wachend. Ultraj. 202.

Leucadendron Hypophyllocarpodendron. Linn. Sp. Pl. ed. 1. p. 93. ed. ii. p. 136. Berg. Act. Stockh. 1766. p. 321.* Berg. Cap. 16.*

Protea Hypophyllocarpodendron. Linn. Mant. 191.* desc. opt.

Protea Hypophylla. Thunb. Diss. n. 16.* Prod. 26. Lam. Illustr. Gen. 1. p. 239. n. 1256. Willd. Sp. Pl. 1. p. 513. Poiret. Encyc. Botan. 5. p. 655.

HAB. In Africæ Australis sabulosis depressis prope Prom. B. Spei. (v. v. in collibus juxta Simon's Bay.)

OBS. Variat foliis glabris, pubescentibus et incano-tomentosis, 3—5-dentatis passimque integris, planis canaliculatisve, ramis nudiusculis, villosis v. tomentosis; Capitulis subsessilibus pedunculatisque; Bracteis latè ovatis, acutis orbiculatisve.

†† *Receptaculum planiusculum; Bracteis propriis angustis deciduis.*

*15. *L. molle*, foliis ellipticis acutis 2—3-dentatis integrisve subsericeo-pubescentibus mollibus, bracteis exterioribus glabriusculis, stigmate ovato.

HAB. In Africæ Australis montibus. (v. s.)

OBS. Proximum *L. crinito*, diversum figura foliorum et fortè caule procumbenti.

16. *L. crinitum*, foliis obovato-oblongis obtusis 3—5-dentatis integrisve; basi angustatis; pubescentibus demum glabris scabriusculis, bracteis omnibus villosis.

Protea crinita. Thunb. Diss. n. 13?* Prod. 25. Willd. Sp. Pl. 1. p. 511? Poiret. Encyc. Botan. 5. p. 657.

HAB. In Africâ Australi. (v. s. in Herb. Soc. Linn.)

17. *L. ole-*

17. *L. oleæfolium*, foliis ovali-oblongis sublanceolatisve tridentatis et integris : adultis glabris, bracteis omnibus villosis, stigmatate oblongo.

Leucadendron oleæfolium. *Berg. Act. Stockh.* 1766. p. 320.*
Berg. Cap. 15.*

Protea criniflora. *Linn. Suppl.* 117.*

HAB. In Africâ Australi. (v. s. in Herb. Banks.)

Obs. Duplex varietas, altera foliis ovali-oblongis obtusis ; bracteis exterioribus glabriusculis apice barbatis : altera foliis lineari-oblongis acutiusculis bracteis omnibus villosis. Ambæ à *L. crinito* diversæ foliis basi laud angustatâ.

18. *L. diffusum*, foliis cuncato-linearibus integris 2—3-dentatisve basi angustatis : adultis glabris, ramis procumbentibus, bracteis tomentosis lanceolatis acuminatis calyce dimidio brevioribus.

Protea heterophylla. *Thunb. Diss. n.* 19*? *Prod.* 26? *Willd. Sp. Pl.* 1. p. 515.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks. et Soc. Linn.)

DESC. *Frutex* prostratus? *Rami* longi, glabri v. hirsuti, quandoque adscendentes. *Folia* uncialia, plana v. marginibus leviter inflexis concaviuscula, obsoletè venosa, in ramis prostratis secunda. *Capitula* solitaria, breviter pedunculata, turbinata, magnitudine avellanæ ; *Bractee* involucri incanæ, calyce hirsuto dimidio breviores. *Pistillum* calyce sesquilingius. *Stigma* clavatum *stylo* capillari parùm crassius.

Obs. Species affinis *L. patulo*.

7. MIMETES.

Salisb. Parad. HYPOPHYLLOCARPODENDRON. *Boerh. Lugd.*
PROTEÆ Sp. 9—10. *Linn. Mant.*

CHAR. GEN. *Calyx* quadripartitus, æqualis, laciniis distinctis. *Stylus* filiformis, deciduus. *Stigma* cylindraceum, gracile. *Nux* ventricosa, sessilis, lævis. *Receptaculum* commune planum, paleis angustis, deciduis. *Involucrum* indefinitè polyphyllum, imbricatum.

HABITUS. Frutices. *Folia integra v. calloso-dentata. Capitula axillaria, in quibusdam folio superiori cucullato amplexa! quandoque terminalia. Involucra membranacea, rarè coriacea, nunc dimidiata! Pistilla calyce post expansionem flaccido longiora. Stigma sæpissimè acutum.*

† *Capitula axillaria.*

1. *M. hirta*, involucris æquilateralibus coloratis acuminatis semi-exsertis 8—10-floris, stigmatè subulato, laminis calycis plumosis, foliis acutis integerrimis.

Scolymocephalus Africanus argenteus foliis Dorycnii Plateau. Herman. Cat. Mt.

Conophoros capensis foliis pilosis apice nigricante. Petiv. Mus. 62. fid. spec. in illius Herb.

Lepidocarpodendron; foliis sericeis, brevibus, confertissimè natis; fructu gracili, longo. Boerh. Lugd. Bat. 2. p. 194. c. tab.

Scolymocephalus africanus argenteus foliis Dorycnii. Weinm. Phyt. 4. p. 292. t. 899. bona.

Leucadendron hirtum. Aman. Acad. 6. p. 83. Sp. Pl. ed. ii. p. 136.*

Protea hirta. *Linn. Mant.* p. 188.* (*Herb. Linn.*) *Thunb. Diss.* n. 55.* exclus. syn. *Boerh. Lugd.* 2. p. 205. *Thunb. Prod.* 27. *Lam. Illust. Gen.* 1. p. 234. n. 1213. *Willd. Sp. Pl.* 1. p. 532. *Poirct. Encyc. Botan.* 5. p. 641.

HAB. In Africæ Australis campis collibusque, in locis humidis. (v. v. in collibus humidis prope Simon's Bay.)

- *2. *M. capitulata*, involucris æquilateralibus coloratis acutis semi-exsertis pubescentibus 8—10-floris, stigmatе apice conico-incrassato! laminis calycis plumosis, foliis acutis integerrimis.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in *Herb. Banks.*)

DESC. *Frutex* erectus. *Rami* pubescentes. *Folia* elliptico-lanceolata, vix uncialia, pubescentia, haud sericea, ciliata, floralia parùm latiora; *Involucra* foliis paulò longiora; *Bracteis* ellipticis, acutis, rubris tenuissimè pubescentibus. *Calyces* involucro vix longiores. *Styli* calycibus ferè duplo longiores apice parùm incrassato tetragono subfusiformi. *Stigma* stylo nodulo articuliformi connexum, cylindraceum, sulcatum, apice duplo crassiore conico-capitato.

- *3. *M. pauciflora*, involucris subæquilateralibus coloratis acutis villosiusculis subquadrifloris, calycibus pistilla æquantibus! laminis nudiusculis, stigmatе cylindraceo, foliis obtusis integerrimis sericeis.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in *Herb. Lambert.*)

DESC. *Frutex* erectus. *Rami* villosi, vestiti. *Folia* imbricata, frequentia, ovalia, plana, uncialia, venis altè immersis ad-
versus

versus lucem tantummodò obviis. *Involucra* cylindracea, foliis sesquialongiora. *Bracteis* membranaceis, rubris, extremis obtusis ter brevioribus. *Calyx* involucri ferè unam quartam longior; *Unguibus* hirsutis; *Laminis* glabriusculis, pube brevi adpressâ. *Stylus* calycem vix superans, extra medium angulatus. *Stigma* cylindraceum, sub-emarginatum, crassitie styli, quo cum nodulo connexum.

4. *M. cucullata*, involucris inæquilateralibus subdimidiatis acuminatis glabriusculis, foliis lineari-oblongis tridentatis glabris: floralibus infra dilatatis marginibus recurvis, stigmate subulato acutissimo.

Scolymocephalus africana, foliis angustis brevioribus, tribus in summitate denticulis, capitulis foliosis interceptis. *Herm. Afr.* 20.

Leucadendros africana s. *Scolymocephalus angustiori folio apicibus tridentatis*. *Plukn. Alm.* 212. t. 304. f. 6. bona.

Hypophyllocarpodendron foliis inferioribus apice trifido rubro superioribus penitus rubris glabris. *Boerh. Lugd. Bat.* 2. p. 206. c. tab.

Scolymocephalus seu *Hypophyllocarpodendron* foliis tribus in summitate. *Weinm. Phyt.* 4. p. 297. t. 905.

Protea foliis lanceolatis obtusis foliis involventibus apice tridentato-callosis. *Roy. Lugd. Bat.* 184.

Leucadendron foliis cuneiformibus apice tridentato-callosis summis ultra florem protensis. *Wachend. Ultraj.* 203.

Leucadendron cucullatum. *Linn. Sp. Pl. ed. i.* p. 93. *ed. ii.* p. 136. *Berg. Act. Stockh.* 1766. p. 320.* *Berg. Cap.* 14.*

Protea cucullata. *Linn. Mant.* 189.* *Thunb. Diss. n.* 17.*

Prod. 26. *Lam. Illust. Gen.* 1. p. 239. n. 1258. *Willd. Sp. Pl.* 1. p. 514. *Poiret. Encyc. Botan.* 5. p. 656.*

HAB. In Africæ Australis uliginosis prope Prom. B. Spei. (v. v. juxta Simon's Bay et Constantiam.)

Obs. *Frutex* 2—3 pedes altus. *Folia* vix sesquiuncialia, subavenia; floralia suprâ glabriuscula. *Stigma* infra apicem non incrassatum. Varietas foliis unciâ brevioribus sublinearibus.

5. *M. Hartogii*, involucris inæquilateralibus subdimidiatis: bracteis acuminatis pubescentibus: interioribus tomentosis incanis, foliis lineari-oblongis tridentatis: adultis glabris marginibus niveo-lanatis; floralium apice angustato suprâ sericeo, stigmate extra medium fusiformi: acumine setaceo.

Hypophyllocarpodendron; foliis lanuginosis, in apice trifido rubro quasi floescens. *Boerh. Lugd. Bat. 2. p. 205. c. tab.*

Scolymocephalus seu *Hypophyllocarpodendron* foliis lanuginosis. *Weinm. Phyt. 4. p. 297. t. 906. a.*

Protea cucullata β. *Lam. Illust. Gen. 1. p. 239. n. 1258.*

HAB. In Africæ Australis collibus, prope Prom. B. Spei. (v. v. in montibus juxta False Bay.)

Desc. *Arbuscula* orgyalis. *Rami* patentes, tomentosi. *Folia* frequentia, imbricata, plana, biuncialia et ultra, 8 lineas lata, subvenosa, utrinque tenuissimè pubescentia, pube demùm deciduâ, lanâ marginis persistenti; floralia dimidio inferiore dilatato, oblongo, marginibus reflexis cucullato, capitulum proximè inferius amplexante; superiore breviorè, lineari, suprâ sericeo, marginibus planis. *Calyx* sesquiuncialis, plumoso-barbatus. *Stylus* calycem superans, sulcato-angulatus. *Stigma* sulcato-quadrangulum sulcis striâ parùm elevatâ. *Receptaculum* paleis subulatis, lanatis.

- *6. *M. Hibbertii*, involucris inæquilateralibus subdimidiatis: bracteis

bracteis obtusis: exterioribus glabris, foliis argenteis oblongo-ellipticis tridentatis integerrimisve.

HAB. In Africæ Australis alpinis humidis, prope Barbiers Kraal. *D. Niven.* (v. s. in Herb. Hibbert., Banks., Lambert.)

DESC. *Frutex* 5—6 pedes altus. *Rami* tomentosi, cinerei. *Folia* imbricata, sessilia, plana, obsoletè venosa, dum duas uncias longa, vix 8 lineas lata. *Involucra* foliis breviora, turbinato-ovata, 7—8-flora. *Bracteis* latè ovatis, exterioribus ciliatis, interioribus sericeis. *Calyx* villosissimus. *Stylus* calyce longior. *Stigma* filiforme, striatum, acutiusculum.

*7. *M. Massoni*, involucris æquilateralibus calyce dimidio brevioribus: bracteis subrotundis obtusis coriaceis foliisque argenteis ovatis integris.

HAB. In Africæ Australis montibus prope Franche Hock. *Masson.* (v. s. in Herb. Banks.)

DESC. *Frutex* erectus. *Rami* sericei. *Folia* imbricata, frequentia, plana, holosericea, obsoletè venosa, biuncialia, sesquiunciam lata, callo apicis nudiusculo. *Involucra* vix semuncialia, globosè ovata, circiter octo-flora; *Bracteis* fructiferis induratis. *Calyx* villis longis, sub-adpressis incanus. *Stylus* calyce longior. *Stigma* filiforme, acutum, striatum, vix crassitie styli. *Receptaculum* villosum, angustum, epaleatum.

†† *Capitula terminalia. Mimetes spuria.*

8. *M. thymelæoides*, caule erecto, foliis ovalibus obtusis pubescentibus semunciâ brevioribus, capitulis subaggregatis, stylis infra medium pubescentibus.

Leucadendron thymelæoides. *Berg. Act. Stockh.* 1766. p. 324.*
Berg. Cap. 19.*

HAB.

HAB. In Africâ Australi, prope Promont. B. Spei. (v. s. in Herb. Banks.)

DESC. *Frutex* ramosissimus. *Rami* stricti, vestiti. *Folia* imbricata, vix unguicularia, subavenia, inferiora glabra. *Capitula* sessilia, globosa, magnitudine vix cerasi nigri. *Bracteæ* involucri lanceolato-ellipticæ. *Paleæ* undique densè lanatæ. *Calyx* sericeo-lanatus. *Stylus* calyce longior. *Stigma* acutiusculum.

9. *M. myrtifolia*, caule erecto, foliis lineari-oblongis obliquis integris v. 2—3-dentatis unciâ brevioribus, stylo glabro, capitulis sub-solitariis.

α. foliis tomentosis, passim 2—3-dentatis, bracteis acuminatis.

β. foliis glabriusculis, summis capitulo parùm longioribus, bracteis obtusiusculis.

Protea myrtifolia. *Thunb. Diss. n.* 50*? *Prod.* 27. *Willd. Sp. Pl.* 1. p. 530. *Poiret. Encyc. Botan.* 5. p. 641.

HAB. In Africâ Australi. (v. s. in Herb. Banks. et Soc. Linn.)

DESC. α. *Frutex* parvus. *Rami* brunnei, adulti glabri, juniores villosi. *Folia* avenia, tenuissimè pubescentia v. glabra. *Capitula* turbinata, sessilia, solitaria v. pauca aggregata, piso vix duplò majora, multiflora. *Bracteæ* involucri pubescentes, ciliatæ; exteriores ovato-lanceolatæ, acumine brevi; interiores oblongo-ellipticæ, obtusiusculæ. *Calyx* tetraphyllus, plumoso-villosus. *Pistillum* calyce longius. *Stigma* crassitie styli. *Squamulæ* hypogynæ subulatæ, persistentes. *Nux* elliptica, vix compressa, tenuissimè pubescens, basi styli terminata: cortex membranaceus, tenuis, albus, separabilis apice rugoso, putamen crustaceum, nigro-fuscum. *Nucleus* integumento simplici, tenuissimo. *Chalaza* apicis lata, vasis radiantibus. *Receptaculum* planum, villosum, epaleatum.

10. *M.*

10. *M. divaricata*, caule procumbente, foliis ovalibus obtusis pubescentibus, stylo glabro.

α. bracteis oblongo-linearibus obtusis semifoliaceis, laminis calycis sericeis.

Scolymocephalos africanus argenteus, foliis brevioribus, myrtiformibus, capitulis rarioribus. *Herm. Afr.* 20.

Leucadendron divaricatum. *Berg. Act. Stockh.* 1766. p. 324.*
Berg. Cap. p. 19.*

Protea divaricata. *Linn. Mant.* 194.* *Thunb. Diss.* n. 57.*
Prod. 27. *Lam. Illustr. Gen.* 1. p. 235. n. 1221. *Poiret. Encyc. Botan.* 5. p. 643. *Willd. Sp. Pl.* 1. p. 533.

β. bracteis lanceolatis acutiusculis subscariosis.

HAB. In *Africae Australis* campis et collibus, ubique prope Promont. B. Spei. (v. v. ad latera montium, juxta Simon's Bay.)

OBS. Calyx tetraphyllus. Receptaculum epaleatum.

11. *M. purpurea*, caule procumbenti, ramis adscendentibus, foliis lineari-subulatis canaliculatis, laminis calycis glabris.

Protea foliis linearibus simplicissimis ramis determinatis floribus terminatricibus. *Roy. Lugd. Bat.* 186.

Leucadendron proteoides. *Linn. Sp. Pl. ed. i.* p. 91.* (fid. spec. tunc in Herb.) *ed. ii.* p. 134.* *Berg. Act. Stockh.* 1766. p. 326.* *Berg. Cap.* 24.*

Protea purpurea. *Linn. Mant.* 195.* *Thunb. Diss.* n. 26.*
Prod. 26. *Lam. Illustr. Gen.* 1. p. 238. n. 1252. *Willd. Sp. Pl.* 1. p. 518. *Poiret. Encyc. Botan.* 5. p. 654.

HAB. In *Africae Australis* collibus, prope Promont. B. Spei; frequens. (v. v. ad latera montium, prope Simon's Bay.)

OBS. I. Receptaculum epaleatum.

OBS. II. Variat Caule erectiusculo; Foliis undique versis et secundis;

secundis ; Bracteis acumine subulato, longo, brevissimo, vel nullo.

8. SERRURIA.

Salisb. Parad. SERRARIA. *Burm. Afr. Adans. Fam.*

GEN. CHAR. *Calyx* quadrifidus, subæqualis, unguibus distinctis. *Stigma* verticale, glabrum. *Squamulæ* quatuor hypogynæ. *Nux* brevissimè pedicellata, ventricosa. *Capitulum* indefinitè multiflorum ; *paleis* persistentibus, imbricatis.

HABITUS. Frutices. *Folia filiformia, trifido-pinnatifida, rarò indivisa.* *Capitula terminalia v. e summis alis, simplicia, nunc composita partialibus congestis v. pedunculo communi diviso corymbosa.* *Involucrum imbricatum, membranaceum, floribus sæpissimè brevius, in paucis longius, quandoque nullum.* *Flores semper sessiles, purpurei.* *Pistillum longitudine calycis.* *Stigma clavatum, rariusve cylindraceum.* *Nux ovalis, tenuiter pubescens, modò barbata, aliquando glabriuscula.*

OBS. Secundum Cl. Salisburium, "Flores interdum pedicellati," quod nunquam observare licuit.

† *Capitula simplicia ; Pedunculi indivisi v. nulli.*

*1. *S. glaberrima*, capitulis axillaribus pedunculatis, bracteis laminisque calycis glabris, foliis indivisis passimque trifidis, caule procumbente.

HAB. In Africæ Australis umbrosis montium. *Masson.* *Kleine Hoot.* *Hock.* *Gul. Roxburgh M. D.* (v. s. in *Herb. Soc. Linn. et Banks.*)

DESC. *Frutex* prostratus, glaber. *Rami* filiformes, subflexuosi. *Folia* alterna, remotiuscula, ramis parùm graciliora, 2—3 uncias longa. *Capitula*, erecta, sub-octoflora, pedunculo bracteato parùm breviora. *Bracteæ* propriæ subrotundæ, mucronatæ,

natae, cucullatae, glabrae, scariosae. *Calyx* strictus, unguibus villosiusculis.

*2. *S. cygnea*, capitulis axillaribus terminalibusque pedunculatis, bracteis glabris subciliatis, calycibus curvatis sericeis, foliis bipinnatis, caule procumbente.

α. Capitula floribus viginti pluribusve : bracteis involucranti-
bus nullis.

β. Capitula floribus viginti paucioribus : bracteis involucranti-
bus nonnullis, lanceolato-ovatis.

HAB. In Africâ Australi prope Winterhoek et alibi. *Gul. Roxburgh, M. D.* (v. s. in Herb. Soc. Linn., β in Herb. Banks.)

DESC. *Frutex* procumbens, ramosus, glabriusculus. *Folia* sesquiunciam longa, quandoque biuncialia, superiora interdum breviora. *Pedunculi* capitulo longiores, bracteis distantibus, sæpiùs curvati. *Capitula* globosa, magnitudine cerasi ; *Bracteis* propriis latè ovatis, acuminatis. *Calyx* unguibus sigmoideo-curvatis ; *Laminis* nutantibus. *Stylus* pariter arcuatus. *Stigma* pendulum.

*3. *S. acrocarpa*, capitulis axillaribus pedunculatis, bracteis tomentosis, calycibus curvatis sericeis, nucibus basi pubescenti styli mucronatis, foliis bipinnatifidis, caule erecto.

HAB. In Africâ Australi, Brant-fly plain. *Gul. Roxburgh, M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Frutex* bipedalis et ultrà. *Ramuli* pubescentes. *Folia* biuncialia, adulta glabra. *Pedunculi* capitulo longiores, sæpè curvati, bracteis glabris distantibus, apice tenuissimè pubescentes. *Capitulum* magnitudine cerasi : *Bracteis* propriis ovato-subrotundis, breviter acuminatis, involucranti-
bus paucis

similibus. *Stylus* basi incrassatâ apice arcuato. *Stigma* pendulum. *Nux barbata* pilis strictis patulis.

- *4. *S. elevata*, capitulis axillaribus pedunculo brevioribus, bracteis cuneato-orbiculatis tomentosis, calycibus breviter barbatis curvatis, nucibus submuticis, foliis bipinnatis unciâ longioribus, caule erecto.

HAB. In Africæ Australis arenosis. *Masson*. Picket Berg. *Gul. Roxburgh*, *M. D.* (v. s. in Herb. Banks., et Soc. Linn.)

DESC. *Frutex* orgyalis. *Rami* tomentosi, cinerei. *Folia* frequentia, pilosiuscula, viridia, inferiora glabra, sesquiuncialia, callis obtusiusculis. *Pedunculi* folia sæpissimè superantes, quandoque 3-unciales, tomentosi, cinerei, bracteis alternis, lanceolatis, patentibus. *Capitulum* magnitudine cerasi, floribus viginti pluribus, semunciâ brevioribus. *Bracteæ* omnes extùs sericeo-tomentosæ, brevissimè mucronatæ, intùs glabræ, intimæ submuticæ. *Nux* submutica, mucronulo vix manifesto, barbata.

OBS. Descriptio e plantâ Massoni : Roxburgianâ paulò diversa, *Calycibus* quandoque sericeis; *bracteis* mucrone longiore; *pedunculis* brevioribus, paucioribus; *foliis* recentioribus magis hirsutis : fortè species distincta.

- *5. *S. Aitoni*, capitulis axillaribus subterminalibus pedunculo brevioribus, bracteis cuneato-subrotundis mucronatis glabriusculis, calycibus plumosis, nucibus mucronatis, foliis tripartito-bipinnatis sericeis unciâ brevioribus, caule erecto.

HAB. In Africâ Australi. *D. Masson*. (v. s. in Herb. D. Aiton.)

DESC. *Rami* stricti, pedales, tomentosi, vestiti. *Folia* erecta, frequentia, 8—10 lineas longa, subargentea tomento arcuè adpresso,

adpresso, profundè trifida, laciniis bipinnatifidis, intermediâ partum longiore magisque divisâ, lacinulis intus sulco tenui, apiculis subrecurvis, callo obtusiusculo. *Pedunculi* e summis alis et terminales, corymbosi, unciales et ultra, tomento brevissimo cinerei, bracteis alternis e basi erectâ lanceolatâ subulatis, recurvis. *Capitula* globosa, magnitudine ferè juglandis, floribus viginti pluribus. *Bractee* exteriores acumine longiore, interiores latiores, omnes glabriusculæ, subciliatæ. *Calyx* 7—8 lineas longus, unguibus laminisque plumoso-barbatis. *Stigma* clavatum, oblongum. *Nux* villis strictis sericeis barbata, basi styli mucronata. *Squamulæ* hypogynæ quatuor, subulatæ, persistentes.

- *6. *S. simplicifolia*, capitulis terminalibus pedunculatis, bracteis villosis, calycibus barbatis, foliis indivisis rariùsve trifidis, caule erecto.

HAB. In Africæ Australis arenosis: Roode Zant Cascade. Gul. Roxburgh, M. D. (v. s. in Herb. Soc. Linn.)

DESC. *Fruticulus* pedalis, sesquipedalis, simplex v. subramosus, glaber, apicem versus tenuissimè pubescens. *Folia* uncialia sesquiuncialia, canaliculata, pleraque indivisa, aliqua passim trifida, juniora hirsuta; radicalia elongata, crassiora, canali latiore. *Pedunculi* solitarii, capitulo longiores, incano-tomentosi; *bracteis* glabriusculis, lanceolatis, distantibus. *Capitulum* magnitudine cerasi, floribus circiter viginti. *Bractee* subrotundæ, breviter acuminatæ, tomentosæ, subincanæ. *Calyx* densè plumosus, niveus. *Stigma* subcylindraceum.

- *7. *S. diffusa*, capitulis terminalibus pedunculatis, bracteis lanceolato-ovatis acuminatis, calycibus barbatis, foliis trifidis

v. pinnatifidis subindè simplicibus uncialibus ramisque glabris, caule procumbente.

HAB. In Africæ Australis arenosis saxosis; in elevationibus propè Roode Zant. *Gul. Roxburgh*, *M. D.* prope Wilde River. *D. Niven.* (v. s. in Herb. Soc. Linn., et Hibbert.)

DESC. *Frutex* diffusus, pedalis bipedalis. *Folia* vix sesquiuncialia, dum pinnatifida laciniis quinque indivisis. *Pedunculi* solitarii, tomentosi, capitulo vix longiores; *bracteis* angustè lanceolatis, concavis, patulis, glabris. *Capitulum* magnitudine cerasi, floribus circiter viginti. *Bractææ* lanceolato-ovatæ, acuminatæ, villosæ, scariosæ; extimæ angustiores, glabriusculæ. *Calyx* unguibus laminisque plumosis. *Stigma* clavato-cylindraceum.

8. *S. pinnata*, capitulis terminalibus axillaribusque pedunculatis subaggregatis, bracteis lanceolatis acuminatis villosis dimidio calyce longioribus, calycis unguibus subsericis: laminis apice barbatis, foliis pinnatifidis trifidisve unciâ longioribus, caule procumbente piloso.

Protea pinnata. *And. Repos.* 512? sed folia nimis longa.

HAB. In Africæ Australis montibus aridis; in ascensu Paarl. Berg. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* totus prostratus, basi divisus, ramis pedalibus, pubescentibus. *Folia* secunda, erecta, subsesquiuncialia, sæpiùs pinnatifida, laciniis quinque, passim trifida, pilosiuscula, callis acutis. *Pedunculi* e summis alis et terminales, capitula subæquantes, adscendentes, tomentosi, bracteis alternis, ovato-lanceolatis, acuminatis, glabriusculis. *Capitula* globosa, magnitudine ferè juglandis, multiflora. *Calycis* laminæ infrà sericæ, apice penicillatim barbatae. *Stigma* erectiusculum, subclavatum, apice dilatato cavo.

*9. *S. are-*

- *9. *S. arenaria*, capitulis terminalibus pedunculo longioribus, bracteis lanceolato-ovatis acuminatis villosis, calycis laminis tribus plumoso-barbatis quartâ subimberbi; unguibus nudiusculis, foliis trifidis pinnatifidisve unciâ brevioribus, caule pubescenti.

HAB. In Africæ Australis arenosis montium. Tygerhock Hill, Blue berg, &c. *Gul. Roxburgh M. D. & D. Niven.* (v. s. in Herb. Soc. Linn. et D. Hibbert.)

DESC. *Frutex* erectus v. decumbens, pedalis, parùm ramosus. *Folia* frequentia, laeiniis indivisis, sæpè secunda. *Pedunculi* solitarii, capitulo dimidio breviores. *Ungues* calycis glabri v. pilis raris patentibus.

10. *S. cyanoides*, capitulis terminalibus pedunculo longioribus, bracteis orbiculato-ovatis acuminatis villosis, calycis laminis tribus longitudinaliter plumoso-barbatis quartâ nudiusculâ, foliis patulis: superioribus subbipinnatifidis vix uncialibus; inferioribus brevioribus trifidis, caule erectiusculo.

Cyanus æthiopicus rigidis capillaceis tenuissimis foliis trifidis ex Prom. B. Spei. *Plukn. Mant.* 61. t. 345. f. 6. fid. spec. in ejus Herb.

Protea foliis linearibus ramosis. *Roy. Lugd. Bat.* 186. *Wachend. Ultraj.* 202.

Leucadendron cyanoides. *Linn. Sp. Pl. ed. i. p. 93. ed. ii. p. 137. Berg. Act. Stockh.* 1766. p. 326. *Berg. Cap.* 27.*

Protea cyanoides. *Linn. Mant.* 188.* *Herb. Linn.*

Protea cyanoides. *Lam. Illust. Gen.* 1. p. 239. n. 1263. *Poir. ret. Encyc. Botan.* 5. p. 658. fortè diversa species.

HAB. In Africæ Australis collibus, prope Promont. B. Spei. (v. v. ad latera montium juxta Simon's Bay.)

DESC. *Frutex* humilis. *Ramuli* glabriusculi v. tenuissimè pubescentes.

bescentes. *Folia* vix uncialia, pilosiuscula, demùm glabra. *Pedunculi* solitarii, tomentosi, capituli sæpiùs dimidio breviores, nunc subæquantes, bracteis alternis. *Capitulum* magnitudine cerasi majoris, folia superiora superans, *Bracteæ* scariosæ, villis adpressis, acumine subulato brevior. *Stigma* clavato-cylindraceum.

- *11. *S. furcellata*, capitulis terminalibus pedunculatis, bracteis lanceolatis: exterioribus pedunculique glabris; interioribus villosis, calycibus barbatis, foliis unciâ longioribus trifidis: laciniis 2—3-fidisve fastigiatis ramisque glabris, caule erecto.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s.)

DESC. *Rami* virgati. *Folia* alterna, sesquiuncialia, ad medium trifida, laciniis modicè patentibus, vix sulcatis, callo brevi acuto, lateralibus bifidis, intermediâ sæpiùs trifidâ. *Pedunculi* capitula subæquantes, bracteis lineari-lanceolatis, imbricatis, glabris, vestiti. *Capitulum* magnitudine cerasi nigri. *Stigma* cylindraceo-clavatum.

OBS. Valdè affinis sequenti.

- *12. *S. scariosa*, capitulis terminalibus pedunculatis, bracteis lanceolatis glabriusculis calyces sericeos æquantibus apice patulis, pedunculis squarrosis, foliis bipinnatis laciniisque divaricatis ramisque glabris, caule erecto.

Protea sphærocephala. *Poiret. Encyc. Botan.* 5. p. 658.* secund. descript. synonyma autem omnia excludenda.

HAB. In Africâ Australi; in depressis, rariùs. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Rami* rubicundi, parùm flexuosi. *Folia* sesquiunciam longa, pinnarum lacinulis paucis, subfastigiatis, callo acuto; superiora modicè patentia. *Pedunculi* subumbellati, capitulo

tulo paulo longiores, pilosiusculi, bracteis lanceolatis, glabris, divaricatis. *Capitulum* globosè-ovatum, magnitudine cerasi minoris ; *Bracteis* omnibus scariosis, glabriusculis, carinatis, apice acuto, patulo. *Calyx* villis arcè adpressis sericeus. *Stigma* subcylindraceum.

13. *S. pedunculata*, capitulis terminalibus pedunculatis, bracteis latè ovatis tomentosis, calycibus curvatis plumoso-barbatis : laminâ interiori villis adpressis sericeâ, foliis bi-tripinnatifidis cauleque erecto hirsutis.

Protea pedunculata. *Lam. Illustr. Gen.* 1. p. 240. n. 1264.

Protea sphærocephala A. *Poiret. Encyc. Botan.* 5. p. 658.

Protea glomerata. *And. Repos.* 264. bona quoad faciem sed stigma nimis inclinans.

HAB. In. Africæ Australis montosis ; solo fertiliori ; Roode Zant Cascade. *Gul. Roxburgh, M. D.* (v. s. in Herb. Banks., Lambert., Hibbert., et Soc. Linn.)

DESC. *Frutex* quandoque orgyalis. *Rami* stricti, pubescentes. *Folia* frequentia, sesquiunciam longa, pube decumbenti v. patulâ, annotino-interrupta. *Pedunculus* terminalis, dum plures aliqui axillares, capitulo sæpiùs longiores, rarò nulli, ramulis floriferis tunc foliis nanis instructis. *Capitulum* magnitudine ferè juglandis. *Calyx* densissimè barbatus, villis strictis, patulis. *Stigma* cylindraceo-clavatum.

- *14. *S. scoparia*, capitulis terminalibus pedunculatis, bracteis latè-ovatis villosis, calycibus barbatis, foliis triternatis patulis unciâ brevioribus ramisque hirsutis, caule decumbente.

HAB. In Africæ Australis depressis arenosis et saxosis ; inter
24 Rivers

24 Rivers et Fontainage Flat. *Gul. Roxburgh, M. D.* (v. s. in *Herb. Soc. Linn. et D. Hibbert.*)

DESC. *Rami* adscendentes, demùm glabriusculi. *Folia* 8—10 lineas longa, subdivaricata, ad medium trifida, laciniis sub-bipinnatis, lateralibus intermediam æquantibus. *Calycis* ungues hirsuti; laminæ densiùs barbata, interioris barbâ brevior. *Stigma* clavatum.

15. *S. hirsuta*, capitulis terminalibus pedunculo longioribus, bracteis lineari-lanceolatis hirsutis, calycibus plumoso-barbatis, foliis bipinnatis uncialibus, ramis hirsutis, caule erecto.

Protea phylicoides. *Thunb. Diss. n. 9.* Prod. 25. Willd. Sp. Pl. 1. p. 510.* excluso synonymo Bergii.

HAB. In Africæ Australis collibus saxosis, propè Prom. B. *Spei.* (v. v. juxta Simon's Bay.)

DESC. *Frutex* 2—3 pedes altus. *Rami* umbellati, stricti, vilis patulis, persistentibus, hirsuti. *Folia* frequentia, quandoque sesquiuncialia, modicè patentia, juniora hirsuta, adulta glabra, laciniis acutissimis. *Pedunculi* solitarii v. sæpè uno plures, capitulo dimidio breviores, bracteis lanccolato-subulatis, divaricatis. *Capitulum* magnitudine ferè juglandis, folia superiora superans. *Calyx* leviter arcuatus, barbâ laminæ interioris brevior. *Stigma* clavato-cylindraceum.

- *16. *S. stilbe*, capitulis terminalibus subsessilibus ovatis, bracteis hirsutis ovatis acumine recurvo, calycibus barbatis, foliis 2—3-ternatis unciâ brevioribus, ramis pubescentibus, caule erecto.

α. folia

α. folia subbiternata, semunciâ breviora, imbricata, adulta glabra; bracteæ pilosiusculæ; nuces glabriusculæ.

β. folia biternata, ferè semuncialia, subimbricata ramique hirsuta; bracteæ nucesque barbatae.

γ. folia subtritermata, semunciâ longiora, patula, ramulorum floriferorum nana; bracteæ nucesque hirsutæ.

HAB. In Africæ Australis montibus saxosis. *Masson.* et *Gul. Roxburgh M. D.* (v. s. *α.* in Herb. Banks. *β.* et *γ.* in Herb. Soc. Linn.)

OBS. Plantæ huc ut varietates propositæ, fortè species distinctæ.

- *17. *S. Niveni*, capitulis terminalibus sessilibus, bracteis lanceolatis: extimis glabris; interioribus sericeis, calycibus barbatis, foliis bipinnatifidis subuncialibus: summis capitulum superantibus ramisque glaberrimis, caule decumbente.

Protea decumbens. *And. Repos.* 349.

HAB. In Africæ Australis montibus saxosis. *Swartberg. D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Fruticulus* diffusus, spithameus, ramosissimus, *Rami* ramulique teretes, glaberrimi, rubicundi. *Folia* biternata et bipinnatifida, intùs canaliculata, mucronibus laciniarum acutissimis, semipellucidis, innocuis; modicè patentia; ramorum procumbentium secunda. *Capitula* solitaria, subsessilia, globosa, magnitudine cerasi nigri. *Bracteæ* extimæ breviter acuminatæ, extùs glaberrimæ, marginibus tenuissimè ciliatis, dimidio capitulo parùm longiores; reliquæ sericæ, apicibus glabriusculis. *Calyx* densè barbatus, laminâ interiori villis adpressis sericeâ. *Stigma* cylindraceum, stylo vix crassius.

18. *S. villosa*, capitulis terminalibus sessilibus, bracteis lanceolatis acuminatis tomentosis, calycis laminis barbatis: unguibus tomentosis, foliis subbitermatis: superioribus capitulum superantibus, ramis hirsutis, caule erecto.

Protea villosa. *Lam. Illust. Gen.* 1. p. 240. n. 1265.

Protea phylicoides. *Poiret. Encyc. Botan.* 5. p. 659.* exclusis synonymis Bergii et Thunbergii.

HAB. In Africâ Australi, prope Promont. B. Spei; in montibus prope Simon's Bay. *Gul. Roxburgh M. D.* in depressis prope Constantiam legi. (v. v.)

DESC. *Frutex* bipedalis et ultra. *Rami* umbellati, stricti, divisi, ultimi hirsuti. *Folia* vix uncialia, trifida; laciniis lateralibus bifidis trifidisve; intermediâ trifidâ, quandoque pinnatâ, mucronibus lacinularum acutissimis, subincurvis: modicè patentia, adulta glabra. *Capitula* solitaria, magnitudine cerasi. *Calycis unguis* tomento arcè adpresso; *Laminæ* penicillatim barbatae. *Stigma* cylindraceo-clavatum.

- *19. *S. faniculacea*, capitulis terminalibus subsessilibus, bracteis glabris ovatis acuminatis, calycibus sericeis, foliis bipinnatis sesquiuncialibus: superioribus capitulum superantibus; ramisque glabris, caule erecto.

HAB. In Africæ Australis depressis, prope Constantiam, (ubi v. v.)

DESC. *Frutex* bipedalis, ramis umbellatis, rubicundis. *Folia* modicè patentia, laciniis gracili-filiformibus, acutissimis. *Capitula* solitaria, magnitudine cerasi; *pedunculo* brevissimo, bracteis imbricatis tecto, v. nullo. *Bracteæ* breviter ciliatæ. *Calyx* leviter arcuatus, unguibus laminisque argenteo-sericeis villis arcè adpressis. *Stigma* oblongo-clavatum.

OBS.

Obs. Facie, foliis, bracteis, calycibusque affinitatem quandam cum *S. glomeratâ* habet; sed capitulis semper solitariis distincta.

*20. *S. ciliata*, capitulis terminalibus pedunculo longioribus, bracteis subulatis glabris margine hirsutis dimidio capituli longioribus, calycibus sericeis, foliis subbipinnatis ramisque glabris, caule erecto.

HAB. In Africæ Australis depressis arenosis prope Physers-Hoek; *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Frutex* ramosissimus. *Rami* rubicundi, ultimi tenuissimè pubescentes. *Folia* vix uncialia, modicè patentia, biternata v. subbipinnatifida; superiora capitulum vix æquantia. *Pedunculi* solitarii v. sæpè aggregati, bracteis subulatis squarrosi. *Capitula* turbinato-obovata, ceraso nigro minorâ. *Bracteæ* extûs glabriusculæ, punctis elevatis scabriusculæ. *Calyx* arcuatus. *Stigma* cylindraceo-clavatum.

*21. *S. congesta*, capitulis terminalibus sessilibus, bracteis subulatis margine hirsutissimis dimidio capituli longioribus, calycibus barbatis, foliis subbiternatis semuncialibus, ramis pilosiusculis, caule erecto.

HAB. In Africæ Australis arenosis, inter Roode Zant et Urbem Cap. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Frutex* ramosissimus. *Rami* sparsi, adulti glabri. *Folia* erecta, quandoque pinnatifida, laciniis indivisis. *Capitula* turbinata, vix magnitudine cerasi nigri, sæpiùs aggregata. *Bracteæ* extûs punctis elevatis, crebris, junioribus piliferis. *Calyx* dense barbatus, villis patulis, parallelis. *Stigma* cylindraceo-clavatum.

- *22. *S. nitida*, capitulis terminalibus pedunculo squarroso duplo longioribus, bracteis capitulo parùm brevioribus: exterioribus subulatis glabris; interioribus villosissimis sericeis, calycis laminis plumoso-barbatis: interiori unguibusque nudiusculis, foliis unciâ longioribus.

Protea cyanoides. Thunb. *Diss. n. 3.*?* *Prod. 25?* Willd. *Sp. Pl. 1. p. 507?*

HAB. In Africæ Australis montibus. Hottentots-Holland-Kloof. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Frutex* glaberrimus, ramis rubicundis. *Folia* pinnatifida et subbipinnatifida, ferè sesquiuncialia. *Capitula* solitaria, globosa, magnitudine avellanæ. *Calyx* strictus, unguibus perangustis, pilosiusculis; lamina interiori apice barbâ brevi rarâ, reliquis longitudinaliter barbatis, villis terminalibus dimidio laminæ longioribus. *Stigma* cylindraceum.

- *23. *S. squarrosa*, capitulis terminalibus axillaribusque, pedunculis ramuliformibus squarrosis, bracteis dimidium capituli superantibus: exterioribus linearibus glabris; interioribus lineari-lanceolatis pilosis, calycis laminis penicillatim barbatis: interiori unguibusque nudiusculis, foliis subbiuncialibus.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in Herb. Lambert.)

DESC. *Frutex* erectus, glaberrimus, ramosissimus, ramulis rubicundis. *Folia* bipinnatifida, patentia. *Pedunculi* capitulis parùm longiores; *bracteis* numerosis, divaricatis, inferioribus teretiusculis, foliaceis, superioribus longioribus, linearibus, confertissimis. *Bracteæ* interioris capituli pilis sparsis, patulis, hirsutæ. *Stigma* cylindraceum.

24. *S. phyllicoides*, capitulis terminalibus axillaribusque, pedunculis ramuliformibus squarrosis, bracteis dimidium capituli superantibus: extimis lineari-subulatis; interioribus lanceolatis; utrisque glabris, calycis laminis penicillato-barbatis: interiori nudiusculâ; unguibus glabris, foliis sesquiuncialibus.

Leucadendron phyllicoides. *Berg. Act. Stockh.* 1766. p. 328.*

Berg. Cap. 29.* desc. opt.

Protea sphærocephala. *Linn. Mant.* 188.* (*Herb. Linn.*) exclus. syn. *Bergii*.

Protea abrotanifolia. *And. Repos. t.* 507.

HAB. In Africâ Australi. (v. s. in *Herb. Linn. et Soc. Linn.*)

DESC. *Frutex* erectus, glaberrimus, ramulis rubicundis. *Folia* bipinnatifida, passimque pinnatifida, modicè patentia, quandoque biuncialia. *Pedunculi* (si placeas ramuli floriferi) axillares et terminales, subcorymbosi, capitulis longiores, bracteis foliaceis, subulatis, indivisis, squarrosi. *Capitula* magnitudine avellanæ. *Bracteæ* extimæ punctis elevatis, interiores læves, marginibus nudis rariùsve ciliatis. *Calyx* strictus, unguibus glaberrimis, laminis exterioribus niveo-barbatis, villis terminalibus longitudine antherarum; interiori glabriusculâ. *Stigma* cylindræum.

- *25. *S. æmula*, bracteis capitulo terminali subsessili parùm brevioribus: exterioribus lanceolatis tomentosis ciliatis; interioribus minoribus villosis, calycis laminis omnibus plumoso-barbatis, foliis bipinnatifidis.

HAB. In Africæ Australis montibus prope Franche Hoek.

Gul. Roxburgh M. D. (v. s. in *Herb. Soc. Linn. et D. Hibbert.*)

DESC. *Frutex* 3—4 pedes altus. (*Niven.*) *Rami* ultimi tomento tenuissimo cinerascetes. *Folia* sesquiuncialia, modicè patentia,

tentia, glabra, laciniis acutissimis. *Pedunculi* capitulo breviores, quandoque brevissimi; *bracteis* subulatis, tomentosis, divaricatis, squarrosi. *Capitula* magnitudine avellanæ majoris. *Bracteæ* membranaceæ. *Calyx* strictus, unguibus nudiusculis. *Stigma* cylindraceum.

26. *S. florida*, bracteis capitulo pedunculato longioribus: exterioribus glabris oblongo-lanceolatis acuminatis; interioribus inclusis lineari-lanceolatis ciliatis, foliis pinnatifidis bipinnatifidisve.

Protea florida. *Thunb. Diss. n. 2.* tab. 1. bona. Lam. Illust. Gen. 1. p. 240. n. 1271. Willd. Sp. Pl. 1. p. 506. Poiret. Encyc. Botan. 5. p. 662.*

HAB. In Africæ Australis montibus propè Franche Hoek. *Masson.* (v. s. in Herb. Banks.)

†† *Capitula composita; partialibus congestis.*

- *27. *S. decumbens*, caule prostrato foliisque glabris trifidis: laciniis indivisis, capitulis partialibus subquadrifloris.

Protea decumbens. *Thunb. Diss. n. 1.* tab. 1. Prod. 25. Willd. Sp. Pl. 1. p. 506. Lam. Illust. Gen. 1. p. 239. n. 1261. Poiret. Encyc. Botan. 5. p. 657.*

Protea procumbens. *Linn. Suppl. 116*.*

HAB. In Africæ Australis lateribus saxosis montium, prope Promont. B. Spei. (v. v. juxta Simon's Bay.)

DESC. *Frutex* prostratus, glaber, basi divisus. *Rami* elongati, rubicundi, parùm flexuosi, sæpè annotino-articulati. *Folia* alterna, erecta, secunda, biuncialia, infra medium trifida, laciniis subæqualibus. *Pedunculi* terminales et sæpè e summis alis, adscendentes, graciles; bracteis nonnullis, parvis, glabris. *Capitulum* commune subconicum, magnitudine ferè juglandis,

juglandis, e quatuor ad sex partialibus imbricatis, breviter pedunculatis, 3—4-floris, quandoque abortione simplex. *Bracteæ* capitulorum partialium orbiculato-ovatae, acumine brevi, subsericeae, passimque glabriusculae. *Calyx* levissimè arcuatus, subsericeus, villis arcuè adpressis. *Stigma* cylindraceum.

28. *S. adscendens*, caule procumbente foliisque glabris pinnatifidis bipinnatifidisque, pedunculis partialibus incano-tomentosis, calycibus curvatis.

Protea ascendens. *Lam. Illustr. Gen.* 1. p. 239. n. 1262. *Poiret. Encyc. Botan.* 5. p. 658*?

HAB. In Africae Australis montibus. *Kleine-Hoot-Hoek. Gul. Roxburgh M. D.* (v. s. in *Herb. Soc. Linn.*)

DESC. *Frutex* glaber. *Rami* rubicundi, quandoque adscendentes. *Folia* sæpiùs bipinnatifida, passim pinnatifida, sesquiuncialia, biuncialia. *Pedunculi* communes terminales et interdum e summis alis, capituli dimidio breviores. *Capitulum* obtusè conicum, magnitudine ferè juglandis, compositum partialibus quinque ad septem, imbricatis, breviter pedunculatis, 6—7-floris. *Bracteæ* ovato-lanceolatae, acumine patulo, glabrae, basi tomentosâ subincanâ. *Calyx* villis adpressis, argenteis, sericeus. *Stigma* subcylindraceum.

- *29 *S. flagellaris*, caule procumbente foliisque pilosis bipinnatifidis, pedunculis partialibus subtomentosis, calycibus strictis.

HAB. In Africae Australis campis arenosis lateribusque montium; prope Simon's Bay, (ubi v. v.)

DESC. *Frutex* prostratus, basi divisus. *Rami* elongati, apice adscendentes, adulti glabriusculi. *Folia* erecta, secunda, circiter biuncialia, laciniis patentibus, fastigiatis, hirsutis, pilis

pilis patulis, tardiùs deciduis. *Pedunculi* communes terminales; bracteis alternis, subulatis, vix longitudine capituli; quandoque recurvi. *Capitulum* magnitudine juglandis, e partialibus 5—8, racemoso-congestis, 8—10-floris. *Pedunculi* partiales capitulis suis breviores, tomento rariore cinerascetes. *Bracteæ* ovatæ, acuminatæ, pube rarâ appressâ conspersæ, ciliatæ. *Calyx* sericeus, villis adpressis imbricatis. *Stigma* subcylindraceum.

30. *S. rubricaulis*, caule erecto foliisque glabriusculis subbipinnatifidis uncialibus, capitulis partialibus paucifloris, bracteis ovatis acuminatis glabris, pedunculis partialibus pilosiusculis, stigmate cylindraceo.

Protea sphærocephala. *Thunb. Diss. n. 5*?* exclus. syn. omn.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s.)

DESC. *Rami* stricti, rubicundi, glabri, pilisve paucis patulis.

Folia biternata et subbipinnatifida, erecta, vix sesquiuncialia.

Pedunculus communis terminalis, capitulo brevior, glaber, bracteis alternis; partiales capitulis suis diinidio breviores, pilosi, quandoque glabriusculi. *Bracteæ* ovatæ, acuminè recurvo, glabræ, ciliatæ, scariosæ. *Calyx* sericeus, villis adpressis.

Obs. Valdè affinis *S. adscendenti*.

31. *S. glomerata*, caule erecto foliisque glabris bipinnatifidis unciâ longioribus, capitulis partialibus multifloris, bracteis exterioribus glabris; interioribus subsericis, pedunculo communi squarroso, stigmate clavato.

Serraria foliis tenuissimè divisis capitulis tomentosis. *Burm.*

Afr. p. 265. t. 99. f. 2. mala.

Leucadendron Serraria. *β. Linn. Sp. Pl. ed. i. p. 94.*

Leucadendron

Leucadendron glomeratum. Linn. *Sp. Pl. ed. ii. p.* 137.
(omissum in *Syst. Nat. ed. xii.*) *Berg. Act. Stockh.* 1766.
p. 328.

Protea glomerata. Linn. *Mant.* 187.* *Herb. Linn.*

Protea patula. Thunb. *Diss. n.* 4.*?

HAB. In *Africæ Australis* collibus saxosis, prope Promont.
B. Spei. (v. s. in *Herb. Linn., Banks., Soc. Linn.*)

DESC. *Frutex* ramis rubicundis. *Folia* modicè patentia, quandoque biuncialia, glaberrima. *Pedunculi communes* sæpè aggregati, bracteis patulis, latè-ovatis, acuminatis, glabris squarrosi, capitula subæquantes; *partiales* capitulis suis breviores; utrique pubescentes. *Capitula* partialia magnitudine pisi majoris, bracteis densissimè imbricatis, subrotundis, acuminatis. *Calyx* sericeus, villis adpressis.

32. *S. decipiens*, caule erecto ramulis pubescentibus, foliis bipinnatifidis uncialibus et ultra, capitulis partialibus paucifloris communi- que breviter pedunculatis, bracteis omnibus villosissimis, calycibus sericeis.

α. *Frutex* 4—5-pedalis, foliis sesquiuncialibus biuncialibusque.

β. *Frutex* 1—2-pedalis, foliis uncialibus, bractearum acumine glabro.

HAB. In *Africæ Australis* planitiis elevationibus arenosis.
Gul. Roxburgh M. D. (v. s. in *Herb. Soc. Linn.*)

DESC. *Frutex* ramosissimus, ramis tenuissimè pubescentibus. *Folia* patentia, superiora capitula superantia. *Capitula communia* sæpè aggregata; *partialia* 5—6-flora; *Bracteæ* ovatæ, villis longis, decumbentibus incanæ, acumine subulato, nunc glabro. *Calyx* curvatus.

33. *S. compar*, caule erecto ramis glabris, foliis bipinnatifidis

unciâ longioribus, capitulis partialibus paucifloris communique breviter pedunculatis, bracteis tomentosis, calycibus barbatis.

HAB. In Africâ Australi. (v. s.)

OBS. Nimis affinis *S. decipienti*. Differt præsertim ramis glabris, calycibus barbatis villis brevissimis patulis, bracteis exterioribus tenuissimè tomentosis, acumine recurvo.

34. *S. Roxburgii*, caule erecto, foliis triternatis fastigiatis semunciâ brevioribus, capitulo communi partialibusque sessilibus paucifloris.

HAB. In Africâ Australi, prope Pardberg in Swartland. *Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Frutex* 3—4-pedalis, ramosissimus. *Rami* umbellati, spithamei, pubescentes. *Folia* adulta glabra, patula, flabelliformia, lacinulis acutissimis. *Capitulum* terminale, sæpè magnitudine juglandis minoris, quandoque vix cerasi. *Bracteæ* lanceolato-ovatae, acuminatae, villosissimæ, incanæ, acumine nudiusculo. *Calyx* argenteo-sericeus, villis laxiùs adpressis. *Stigma* cylindraceo-clavatum.

††† *Pedunculi divisi. Capitulis distinctis, corymbosis v. racemosis.*

35. *S. candicans*, capitulis racemosis paucifloris, pedunculis partialibus calyce barbato brevioribus, foliis bipinnatifidis ramulisque incanis.

HAB. In Africâ Australi. (v. s.)

OBS. Facies *S. Burmanni* β , cique quam maximè affinis.

36. *S. Burmanni*, capitulis corymbosis subdecemfloris, calycibus fastigiatis sericeis apiceve nudiusculis pedunculo partiali brevioribus, foliis bipinnatifidis setaceis vix biuncialibus.

α . Ramis

α. Ramis foliisque pilosiusculis; capitulis turbinatis, bracteis acumine glabriusculo; calycis laminis demùm nudiusculis.

Abrotanoides arboreum monanotapense floribus in ramulorum cymis. *Plukn. Mant. 1. t. 329. f. 1. fide specim. in illius Herb.*

Serraria foliis tenuissimè divisis floribus rubris apetalis. *Burm. Afr. p. 264. t. 99. f. 1. mala, nisi quoad figuram capitulorum.*

Leucadendron Serraria α. *Linn. Sp. Pl. ed. i. p. 93. ed. ii. p. 137.*

Protea Serraria. *Linn. Mant. 188.* Herb. Linn. Thunb. Diss. n. 6.* Prod. 25. Willd. Sp. Pl. 1. p. 508. Lam. Illust. Gen. 1. p. 240. n. 1268. Poiret. Encyc. Botan. 5. p. 660.*

β. Ramis foliisque subsericeis; capitulis basi obtusis, bracteis totis calycibusque sericeis.

HAB. IN Africæ Australis depressis sterilibus, et ad latera montium. α. ubique. β. rariùs; fortè distincta species: (α. v. v. juxta Simon's Bay. β. v. s. in Herb. Soc. Linn. et D. Hibbert.)

37. *S. triternata*, corymbis compositis, capitulis globosis; floribus viginti pluribus imbricatis, bracteis pedunculisque partialibus sericeis, foliis triternatis digitalibus cauleque glaberrimis.

Protea triternata. Thunb. Diss. n. 7. Prod. 25. Willd. Sp. Pl. 1. p. 509. Poiret. Encyc. Botan. 5. p. 660.*

Protea argentiflora. And. Repos. 447. bona.

HAB. IN Africâ Australi, prope fluvium ad Roode Zant. *D. Niven.* (v. s. in Herb. Banks., Hibbert., et Soc. Linn.)

DESC. *Frutex* erectus, orgyalis. *Rami* rubicundi crassitie
s 2 pennæ

pennæ auserinæ. *Folia* patentia. *Corymbus* paniculatus, foliis sæpiùs longior, ramis glabris, ramulis tomentos, incanis, subangulatis. *Bracteæ* ad divisuras glabriusculæ, acutæ, patentès. *Capitula* magnitudine cerasi nigri. *Bracteæ* ovatæ, acuminatæ. *Calyx* argenteo-sericeus, villis laxiùs decumbentibus. *Stigma* ovale.

38. *S. elongata*, corymbis simplicibus subcompositisve, pedunculo communi elongato: partialibus bracteisque glabris: acumine subulato recurvo dimidium baseos ovatæ superante, foliis 2—3-pinnatifidis digitalibus.

Leucadendron elongatum. *Berg. Act. Stockh.* 1766. p. 327*.
Berg. Cap. 27.*

Protea glomerata. *Thunb. Diss.* n. 8*. exclus. synonym. Linnæi et fortè Burmanni. *Thunb. Prod.* 25. *Willd. Sp. Pl.* 1. p. 509. sec. descrip. a Thunb. mutuato.

Protea thyrsoïdes. *Lam. Illust. Gen.* 1. p. 240. n. 1267. *Poiret. Encyc. Botan.* 5. p. 660*.

HAB. In Africæ Australis montibus. Hottentots-Holland-Kloof. Kleine-hoot-Hoek. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks. et Soc. Linn.)

DESC. *Frutex* erectus, subramosus, sesquipedalis, glaber. *Folia* (*Crithmi*) ad apicem rami articulative annotini conferta, infrà nulla. *Pedunculus* communis 3—10-uncialis, infra bracteis distantibus, apice corymbosus. *Capitula* globosa, 16—20-flora, superiora præcociora. *Bracteæ* scariosæ, latè ovatæ. *Calyx* sericeus. *Stigma* clavato-oblongum.

39. *S. crithmifolia*, racemis simplicibus, pedunculo communi elongato partialibusque glabris, capitulis subtrigintifloris, bracteis glaberrimis latioribus quàm longis: mucrone brevissimo obtuso erecto, foliis bi-tripinnatifidis digitalibus.

HAB.

HAB. IN Africâ Australi. D. Niven. (v. s. in Herb. D. Hibbert.)

DESC. *Frutex* erectus, simplex? *Folia* 3—4-uncialia, laciniis tertiusculis, callo apicis obtuso. *Pedunculus* terminalis, scapiformis, sæpè infra racemum 8—10 uncias æquans, bracteis paucissimis. *Racemus* scapo plerumque brevior, 8—10-florus. *Pedunculi* partiales, capitulo longiores, basi dilatâtâ, cum processu scutelliformi racheos articulati. *Capitula* magnitudine avellanæ, globosa. *Calyx* semuncialis. *Nux* undique pubescens, pedicello brevissimo, glabro, rugoso.

9. NIVENIA.

Paranomus. *Salisb. Parad.*

CHAR. GEN. *Calyx* quadrifidus, æqualis, totus deciduus. *Stigma* clavatum, verticale. *Nux* ventricosa, nitens, sessilis, basi integrâ. *Involucrum* simplici serie tetraphyllum, quadriflorum, fructiferum induratum; *Receptaculo* plano epaleato.

HABITUS. Fructices. *Folia sparsa, inferiora bipinnatifida filiformia; superiora, in quibusdam, indivisa, plana.* *Involucra in spicam rariùsve capitulum terminale digesta, sessilia, bracteâ unicâ subtensa.* *Flores purpurascens.*

This genus is published by Mr. Salisbury: his primary generic character does not indeed at all differ from that which he has given to *Mimetes*; in his account of Inflorescence, however, it is evident he understood the genus nearly as I have here proposed it: I should therefore have adopted his name had it appeared to me tenable; but I am disposed to believe that he will, on reconsidering the subject, see the propriety of relinquishing it; for the irregularity or unusual structure, which (if I understand him) he says exists “tot partibus diversis,” only takes place in the leaves of a small
number

number of species; on the other hand, the flowers of all are perfectly regular, and that too in opposition to some of the most nearly related genera, while the great uniformity and regularity of inflorescence forms an essential part of its character. I have therefore named it in honour of Mr. James Niven, an intelligent observer and indefatigable collector, to whom botanists are indebted for the discovery of many new species, especially in the two extensive South-African families of *Erica* and *Proteaceæ*.

† *Folia superiora indivisa, latiora.*

1. *N. Sceptrum*, foliis obovatis lanceolatisve planiusculis margine simplicibus, calyce sericeo villis adpressis.

Protea Sceptrum Gustavianum. *Sparm. in Act. Stockh.* 1777. p. 55. t. 1. bona. *Linn. Suppl.* 116. (*Herb. Linn.*)

Protea Sceptrum. *Thunb. Diss. n.* 12.* *Prod.* 25. *Willd. Sp. Pl.* 1. p. 511. *Poiret. Encyc. Botan.* 5. p. 662.

Protea alopecuroides. *Lam. Illustr. Gen.* 1. p. 240. n. 1272.

HAB. In *Africae Australis* summis montibus *Hottentots-Holland.* (v. s. in *Herb. Banks.*)

Obs. Involucri fructiferi foliola aucta, indurata.

- *2. *N. marginata*, foliis latioribus quàm longis cucullatis marginatis, calyce sericeo villis adpressis, involucri foliolis acutis apice glabriusculis.

HAB. In *Africae Australis* montibus. *Gul. Roxburgh M. D.* (v. s. in *Herb. Soc. Linn.*)

Desc. *Frutex.* Rami umbellati, stricti, glabri, rubicundi. *Folia* subrotunda, parùm latiora quàm longa, diametro 8—10-lineari, glauca, margine cartilagineo, latiusculo, semipellucido, (infima nondum visa). *Spica* subsessilis, sesquiuncialis.

cialis. *Bractee* subulatæ, concavæ, glabriusculæ. *Stylus* glaber. *Stigma* clavâ oblongâ.

3. *N. spathulata*, foliis latioribus quàm longis cucullatis marginatis, involucri foliolis obtusis, calyce barbato, stylo glabro, stigmatе clavato-oblongo.

Protea spathulata. *Thunb. Diss. n. 58*. t. 5. Prod. 28. Lam. Illust. Gen. 1. p. 235. n. 1213. Willd. Sp. Pl. 1. p. 533. Poiret. Encyc. Botan. 5. p. 642.*

HAB. In Africæ Australis montibus, Platte-Kloof. *D. Masson.* (v. s. in Herb. Banks.)

Obs. Folia infirma 2—3-pinnatifida, filiformia, canaliculata.

- *4. *N. parvifolia*, foliis latioribus quàm longis cucullatis, calycibus barbatis, stylo lanato, stigmatе conico-capitato.

Protea Scephtrum. *Lam. Illust. Gen. 1. p. 241. n. 1273?*

Protea Gustaviana. *Poiret. Encyc. Botan. 5. p. 663? exclus. syn. Sparm. et Linnei.*

Protea spathulata. *Thunb. Diss. tab. 5. quoad figuram.*

HAB. In Africæ Australis montibus. *D. Masson.* (v. s. in Herb. Banks., Soc. Linn., Hibbert.)

DESC. *Frutex* ramosissimus. *Rami* umbellati, patentes; ramuli tenuissimè pubescentes. *Folia inferiora* bipinnatifida, filiformia, canaliculata; *reliqua* orbiculato-rhombea, frequentia, glaberrima, diametro vix unguiculari, margine cartilagineo, angusto, crenulato. *Petioles* adpressi, foliis breviores. *Spicæ* terminales, solitariae, v. aggregatae, sesquiunciales—biunciales, dum solitariae sessiles, dum aggregatae sæpè pedunculatae. *Involucrum* foliolis subrotundis, fructiferis auctis, induratis. *Stylus* angulatus, dimidio inferiore longiore, lanato. *Stigma* magnum, apice styli duplo crassius, rugosiusculum.

†† *Folia omnia bipinnatifida.*

5. *N. spicata*, pedunculis subumbellatis dimidio spicæ cylindraceæ longioribus, bracteis subtendentibus pedunculique ovatis, involucris inferioribus distinctis, stylis ad duas tertias villosissimis, foliis glabris, ramis tomentosis.

• *Leucadendron spicatum.* *Berg. Act. Stockh.* 1766. p. 327*.
Berg. Cap. 25.*

Protea spicata. *Linn. Munt.* 187.* (*Herb. Linn.*) *Thunb. Diss.* n. 11.* *Prod.* 25. *Willd. Sp. Pl.* 1. p. 511.

HAB. In Africæ Australis montibus. Hottentots-Holland-Kloof. (v. s. in *Herb. Banks.*)

DESC. *Frutex* erectus, ramis tenuissimè tomentosis, villis præterea nullis. *Folia* subtritermata, binuncialia, canaliculata, callis obtusis. *Pedunculi* terminales, quandoque solitarii, sæpiùs 3—5 umbellati, tomento villisque brevibus patulis incani; bracteis alternis, numerosis, adpressis; sesquiunciales—biunciales. *Spicæ* sesquiunciales, usque $2\frac{1}{2}$ uncias æquantes. *Invòlucra* superiora conferta, inferiora distincta; bracteis subtendentibus ovatis, acumine brevissimo; *foliolis* ovatis, acutis, fructiferis auctis, induratis. *Calyx* basi villosus, unguis tomentosi, laminis breviter barbatis. *Stylus* ipsâ basi et tertia parte superiore glabris. *Stigma* clavato-ovale. *Nux* ovata, cortice albo nitente tenuissimo; denudata fusca, basi parum incrassatâ, stylo diu terminata.

6. *N. crithmifolia*, pedunculis umbellatis spicas conico-cylindraceas subæquantibus, bracteis subtendentibus ovatis acuminatis, involucris alternis: foliolis obtusis, stylis ad medium villosis, foliis divaricatis glabris.

Protea Lagopus. *And. Repos.* 243.

HAB.

HAB. In Africæ Australis montibus. *D. Niven.* (v. s. in Herb. Hibbert.)

OBS. Nimis affinis *P. spicato*, et fortè haud distincta species: differt tamen foliis divaricatis, lacinulis latoribus, sursum paulò dilatatis; bracteis pedunculi paucioribus parùmque angustioribus; spicis pedunculo vix longioribus; involucris magis distinctis, foliolis obtusioribus tomento arcètè adpresso; styli dimidio superiore glabro.

7. *N. media*, spicis cylindraccis pedunculo quater longioribus, bracteis subtendentibus capitulorum lanceolato-subulatis, involucris inferioribus subdistinctis: foliolis ovatis acutis apice imberbibus, stylo infra medium pubescenti, foliis glabris, ramis tomentosis.

Protea spicata. *And. Repos.* 234?

HAB. In Africæ Australis montibus, frequens. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* 6—8 pedes altus (*Niven*). *Rami* umbellati, stricti, tomento tenuissimo cinerascens. *Folia* erecta, sesquiuncialia; inferiora biternata et subtritermata; superiora trifida, laciniis lateralibus subsimplicibus. *Pedunculi* terminales, solitarii, vix unciales, villosi, bracteis lanceolatis, sparsis, erectis, tomentosis. *Spicæ* 3—5 uncias longæ, involucris distinctis, tamen approximatis, foliolis acutissimis, tomento arcètè adpresso. *Calyx* tubo tomentoso, involucro ferè ter longiore; laminis villis brevibus, sericeis, subdecumbentibus, barbatis. *Stylus* vix ultra unam tertiam a basi pubescens. *Stigma* gracile, clavatum.

8. *N. Lagopus*, spicis subsessilibus cylindraccis, capitulis imbricatis: bracteis subtendentibus lanceolato-subulatis: invo-

lucris subrotundis apice acuto barbato, stylo infra medium pubescente, foliis adultis glabris: junioribus ramulisque pilosis.

Protea Lagopus. Thunb. Diss. n. 10.* Willd. Sp. Pl. 1. p. 510.

HAB. In Africae Australis montibus. Gul. Roxburgh M. D. (v. s.)

DESC. Frutex erectus. Rami umbellati. Folia vix sesquiuncialia, modicè patentia, biternata. Spicæ solitariae, densae, 2—4 unciales, pedunculo quandoque semunciali, sæpè brevissimo v. nullo. Bracteæ subtendentes apice barbatae. Calyx unguibus tomentosus, laminis barbatis, villis longis, numerosis, patulis. Stylus vix ad medium pubescens. Stigma ovali-clavatum.

- *9. *N. mollissima*, spicis pedunculos vix æquantibus, foliis sericeis triternatis (uncialibus), calycis unguibus tomentosus: laminis barbatis.

HAB. In Africae Australis montibus. D. Joh. Roxburgh. (v. s. in Herb. Banks., Lambert., Linn. Soc.)

DESC. Frutex erectus, tomentosus, incanus. Rami ramulique tomento arctè adpresso. Folia mollissima, profundè trifida, lacinulis fastigiatis. Pedunculi terminales, subsolitarii, foliis breviores. Spicæ subovatae, capitulis inferioribus distinctis, bracteis ovatis acutis, involucri similibus, utrisque tomentosus, imberbis. Calycis unguis involucri ferè ter longiores. Stylus infra medium pubescens. Stigma gracile. Nux ovata, cuticulâ albâ nitente tenuissimè pubescente, basi incrassatâ styli diu coronata; involucri foliolis coriaceo-induratis, parùmque auctis, demùm patulis cincta.

- *10. *N. capitata*, capitulo communi globoso subsessili, unguibus laminisque

laminisque calycis barbatis, foliis semiuncialibus : ramulorum inferioribus glabris.

HAB. In Africæ Australis montosis, near Brant-fly's Hill. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks., Lambert., Soc. Linn.)

DESC. *Frutex* erectus, tripedalis et ultrà. *Rami* umbellati, ultimi tomentosi. *Folia* biternata, canaliculata, superiora ramulorum sericea. *Capitula* communia vix magnitudine cerasi nigri, pauciflora, quandoque aggregata breviterque pedunculata. *Involucrum* foliolis lanceolato-ovatis, acutis. *Stylus* medio pubescens, utroque fine glaber. *Stigma* ovali-clavatum.

10. SOROCEPHALUS.

Spatallæ sp. *Salisb. Parad.*

CHAR. GEN. *Calyx* quadrifidus, æqualis, totus deciduus. *Stigma* verticale, clavatum. *Nux* ventricosa, brevissimè pedicellata v. basi emarginata. *Involucrum* subsimplici serie 3—6-phyl-lum, definitè pauciflorum v. uniflorum : fructiferum non mutatum. *Receptaculum* epaleatum.

HABITUS. Frutices. *Ramis* virgatis. *Folia* sparsa, filiformia v. plana, indivisa, infima variè bipinnatifida. *Involucra* subsessilia, unibracteata, in spicam capituliformem basi nunc bracteis imbricatis subtensam, congesta. *Flores* purpurascens.

ETYM. *σωρος* cumulus, et *κεφαλή* caput ; ob capitula congesta.

OBS. Genus complectens phalanges duas facie et structurâ paràm diversas, quarum *prima* habitu et inflorescentiâ *Spatalla* proxima, diversa tamen stigmate verticali, calyceque semper regulari : *secunda* e speciebus inter se convenientibus capitulo communi involucrato, sed discrepantibus numero florum foliolorumque involucri partialis, nec non foliis in quibusdam filiformibus, in aliis planis, et in unicâ dimor-

phis instar *Niveniæ*: fructus in hujus sectionis duabus speciebus tantummodo observatus, in alterâ (foliis filiformibus) brevissimè pedicellatus, basi obsoletè emarginatâ, tenuissimè pubescens; in alterâ (foliis planis) glaberrimus, sessilis, basi angustatâ, profundè emarginatâ.

† Spica nudiuscula. Involucra 1—3-flora. Nux brevissimè pedicellata, basi integrâ. Folia filiformia, indivisa.

*1. *S. setaceus*, involucris unifloris, foliis setaceis incurvis (uncialibus) ramulisque hirsutis.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in *Herb. Soc. Linn.*)

DESC. *Frutex* erectus. *Rami* virgati, stricti, umbellati. *Folia* frequentia, vix sesquiuncialia, mucrone setaceo, sphacelato: inferiora minùs incurva. *Capitulum* terminale, sessile, ovatum, magnitudine cerasi nigri. *Calyx* unguibus laxiùs tomentosis; laminis barbatis. *Stigma* conico-ovatum.

*2. *S. salsoloides*, involucris unifloris, foliis triquetro-filiformibus incurvis (semuncialibus) glabris.

HAB. In Africâ Australi. *Gul. Roxburgh M. D.* (v. s. in *Herb. Soc. Linn.*)

DESC. *Frutex* erectus, ramosissimus. *Rami* glabri, ramuli tenuissimè pubescentes. *Folia* frequentia, semiteretia, suprâ sulcata, mucrone acuto subconcolori. *Capitulum* terminale, sessile, ovatum, vix magnitudine cerasi nigri, bracteolis paucis, brevissimis, lanceolato-linearibus, subtensum. *Calyx* barbatus, villis brevibus. *Stigma* erectum v. parùm inclinans.

*3. *S. imberbis*, involucris trifloris, laminis calycis acuminibusque bractearum glabris.

HAB.

HAB. In Africâ Australi. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* erectus, ramosissimus. *Ramuli* pubescentes. *Folia* glabra, uncialia, modicè patentia, parùm incurva, suprâ sulcata, acutè mucronata. *Capitulum* terminale, breviter pedunculatum, subglobosum, magnitudine cerasi nigri. *Bracteæ* lanceolatæ, ciliatæ, acumine subulato, glabro. *Calycis* unguis barbati. *Stylus* strictus. *Stigma* ovato-clavatum; æquale.

*4. *S. spatalloides*, involucris trifloris subpedicellatis, calycis laminis barbatis.

HAB. In Africâ Australi; prope Franche-hoek. *D. Niven.* (v. s. in Herb. Soc. Linn., et D. Hibbert.)

DESC. *Frutex* erectus. *Rami* umbellati, tenuissimè pubescentes. *Folia* modicè patentia, parùm incurva, vix uncialia, juniora pilosa. *Capitula* solitaria v. 2—3 aggregata, breviter pedunculata, ovata v. oblonga, magnitudine avellanæ. *Bracteæ* lanceolatæ, acutæ, pubescentes, apice quandoque glabriusculo. *Calycis* laminæ longiùs barbatae. *Stylus* apice sæpiùs incurvo, modò rectiusculo. *Stigma* styli hamatiparùm inæquale; rectiusculi æquilaterale, ovatum.

†† *Spica subinvolucrata.* Involucra 4—6-flora. *Nux basi emarginatâ.*

*5. *S. tenuifolia*, foliis filiformibus (semunciâ brevioribus), capitulis paucifloris, calycis laminis plumoso-barbatis: interiori nudiusculâ.

HAB. In Africæ Australis montosis; in humidis prope Breede River. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* 3—4 pedes altus (*Niven*), facie *Spatallæ proliferae*. *Rami* glabri, rubicundi, vestiti; ramuli villosiusculi. *Folia* imbricata,

imbricata, scabriuscula, mucrone acuto; juniora hirsuta. *Capitulum commune* terminale, sessile, magnitudine pisi, e partialibus 2—4 compositum. *Involucra partialia* subimbricata, foliolis lanceolatis, barbatis, apice glabriusculo. *Calyx* profundè quadrifidus, æqualis. *Stylus* strictus. *Stigma* æquilaterale, erectum, ovatum.

6. *S. lanatus*, foliis triquetro-filiformibus (semunciâ longioribus) suprâ sulcatis, capitulis multifloris, calycis laminis omnibus plumoso-barbatis.

Protea lanata. Thunb. *Diss. n.* 30.* *t.* 3. *Prod.* 26. Willd. *Sp. Pl.* 1. p. 519. Poiret. *Encyc. Botan.* 5. p. 653.

HAB. In Africæ Australis montosis. Swartland. (v. s. in Herb. Banks.)

DESC. *Frutex* erectus. *Rami* subumbellati, stricti, vestiti, tenuissimè pubescentes. *Folia* imbricata, 5—8 lineas longa. *Capitulum* terminale, solitarium, sessile, globosum, magnitudine avellanæ majoris: *partialia* densissimè congesta, 5—8-flora: *Involucris* 5—7-phyllis, foliolis angusto-lanceolatis, barbatis. *Calyx* profundè 4-fidus, æqualis. *Stylus* strictus. *Stigma* ovatum, æquilaterale, stylo ferè duplò crassius. *Nux* brevissimè pedicellata basique leviter emarginata, tenuissimè pubescens, cortice tenui, rugosiusculo, fusco.

OBS. Variat foliis subtùs triquetris teretibusque, scabriusculis et lævibus.

7. *S. imbricatus*, foliis lanceolatis subtùs scabris, unguibus calycis glanduloso-pilosis, stigmate clavato.

Protea imbricata. Thunb. *Diss. n.* 45. *t.* 5. *Prod.* 27. Linn. *Suppl.* 116*. Lam. *Illustr. Gen.* 1. p. 235. n. 1222. Willd. *Sp. Pl.* 1. p. 527. Poiret. *Encyc. Botan.* 5. p. 643. And. *Repos.* 527.

HAB.

HAB. In Africæ Australis montibus. (v. s. in Herb. var. et v. in Hort. D. Hibbert.)

DESC. *Frutex* erectus. *Rami* elongati, stricti. *Folia* imbricata, subtùs convexiuscula venoso-striata, suprà concaviuscula lævia, unguicularia, mucrone incurvo. *Capitulum* terminale, sessile, subovatum, solitarium, v. e. 2—3 aggregatis compositum. *Involucrum commune* polyphyllum, imbricatum, capitulo brevius; foliolis lanceolatis, membranaceis, coloratis, scabriusculis. *Involucra partialia* sæpiùs quadriflora, tetraphylla; foliolis lanceolatis, hirsutis. *Calyx* tubo gracili, laminis barbatis. *Ovarium* barbatum. *Stylus* strictus. *Stigma* elliptico-clavatum, hinc gibbosiusculum. *Nux* glaberrima, nitens, fusca, oblonga, basi angustatâ concolori emarginatâ.

*8. *S. diversifolius*, foliis spathulato-lanceolatis subtùs lævibus: infimis bipinnatifidis, unguibus laminisque calycis barbatis, stigmate cylindræo.

HAB. In Africæ Australis montibus saxosis prope Goud Rivier. *D. Niven*. (v. s. in Herb. Banks., Lambert., et Hibbert.)

DESC. *Frutex* erectus, glaber, bipedalis usque orgyalis, indivisus, v. bifidus, strictus, crassitie pennæ olorinæ, suprà pubescens. *Folia infima* trifido-bipinnatifida, canaliculata, biuncialia; *reliqua* imbricata, obtusiuscula, parùm concava, vix semuncialia. *Capitulum* terminale, solitarium, sessile, ovatum, obtusum, magnitudine pruni minoris.

11. SPATALLA.

Salisb. Parad.

CHAR. GEN. *Calyx* quadrifidus, laciniâ interiore (in plerisque) majore, totus deciduus. *Stigma* obliquum, dilatatum. *Nux* ventricosa, brevissimè pedicellata. *Involucrum* simplici serie 2—4-phyllum,

2—4-phyllum, uniflorum v. definitè pauciflorum. *Receptaculum* epaleatum.

HABITUS. Frutices. Folia *sparsa, filiforma, indivisa*. Involucra *terminalia, spicata v. racemosa, unibracteata, fructifera haud mutata*. Flores *purpurascentes*. Anthera *laciniae majoris calycis proportionatim major, et in quibusdam unica fertilis*.

† Involucra *uniflora*. Stigma *concavum, cochleariforme*. Calyx *inæqualis*.

- *1. *S. mollis*, involucro diphylo: foliolis integerrimis, foliis strictis ramulisque villosis.

HAB. In Africæ Australis montibus. *D. Joh. Roxburgh.* (v. s. in Herb. Lambert.)

DESC. *Frutex* erectus, ramosissimus. *Rami* rubicundi, ramuli graciles, erecti. *Folia* erecto-patentia, 7—8 lineas longa, callo acutissimo, villis modicè patentibus sericea. *Spica* sessilis, erecta, solitaria, oblongo-cylindræa, densa, racemosa, vix uncialis. *Bracteæ* foliaceæ, pedicellis duplò longiores. *Involucrum* foliolis ovatis, villosis, exteriore latiore. *Calyx* densè barbatus, laminâ laciniae majoris villis marginalibus inflexis. *Squamulæ hypogynæ* quatuor, lineares, persistentes.

- *2. *S. pedunculata*, involucro diphylo: foliolo latiore tridentato, spicâ imbricatâ, pedunculo foliis longiore triquetris incurvis basi attenuatis, bracteis sericeis involucro brevioribus.

HAB. In Africæ Australis montibus. *Kleine-Hoot-Hoek. Gul. Roxburgh M. D.* (v. s. in Herb. Soc. Linn.)

DESC. *Frutex* erectus, ramosissimus, foliis ramisque adultis glabris, junioribus sericeis. *Folia* frequentia, ferè uncialia, basi attenuatâ, erectâ, suprâ patentia, falcato-incurva, callo apicis

apicis obtusiusculo. *Pedunculi* sesquiunciales, solitarii, sericei; bracteis alternis, subulatis. *Spica* cylindræa, pedunculo vix longior; pedicellis, involucris, calycibusque sericeis.

- *3. *S. nivea*, involucrio diphyllò: foliolo latiore tridentato, spicâ imbricatâ, pedunculo foliis brevior, rectiusculis acutissimis bracteis foliaceis villosiusculis involucra æquantibus.

HAB. In Africæ Australis montibus. *D. Niven.* (v. s. in Herb. D. Hibbert.)

DESC. *Frutex* erectus, ramosissimus, ramis foliisque adultis glabris, novellis sericeis. *Folia* uncialia, leviter incurva, v. rectiuscula, basi parùm attenuata. *Pedunculi* solitarii, subsericei, bracteis alternis subulatis. *Spica* sesquiuncialis, pedunculo duplò longior. *Involucrum* foliolum exterius profundè tridentatum, dente intermedio angustiore. *Calycis* laminæ villis brevibus, patulis, niveis barbatae.

- *4. *S. ramulosa*, involucrio diphyllò: foliolo latiore trifido, spicâ subsessili imbricatâ, bracteis superioribus longitudine pedicellorum, foliis acutè mucronatis.

Protea foliis setaceis, floribus racemosis. *Hort. Cliff.* 496?

Leucadendron racemosum. *Linn. Sp. Pl. ed. i. p. 91? ed. ii. p. 194? Berg. Act. Stockh. 1766. p. 325.* Berg. Cap. p. 23.**

Protea racemosa. *Thunb. Diss. n. 21.*? Prod. 26?*

HAB. In Africæ Australis montibus. Roode Zant Kloof. (v. s. in Herb. Banks., Soc. Linn.)

DESC. *Frutex* erectus, ramosissimus; ramis virgatis filiformibus, foliisque adultis glabris, novellis sericeis. *Folia* frequentia, modicè patentia, parùmque incurva, basi attenuata, vix uncialia, suprâ canaliculata, subtùs convexa, callo acuto

mucroniformi. *Spica* terminalis, breviter pedunculata, cylindracea, uncialis, sesquiuncialis, densa, subracemosa, floribus omnibus imbricatis, ramulo uno alterove sericeo brevi, sæpissimè stipata. *Bracteæ* omnes pedicellos pariter tomentosos æquantes. *Involucrum* laciniâ mediâ labii majoris angustiore. *Calyx* breviter densèque barbatus, villis marginalibus, laminæ majoris arcuè inflexis. *Stigma* cochleariforme, papillâ centrali.

- *5. *S. laxa*, involucro diphylo: foliolo latiore trifido, racemo subpedunculato, laxiusculo, bracteis superioribus pedicello brevioribus.

HAB. In Africæ Australis montibus. Kleine-Hoot-Hoek. *Gul. Roxburgh M. D.* (v. s. in Herb. Banks., Lambert., Soc. Linn.)

DESC. *Frutex* erectus, 4—6 pedalis, (*Niven*) ramosus. *Rami* graciles, virgati, rubicundi, ramuli subsericei. *Folia* patentierecta, leviter incurva, v. rectiuscula, basi attenuata, callo apicis acutiusculo, v. obtusiusculo, uncialia, inferiora glabra, superiora sericea. *Racemi* breviter pedunculati, solitarii, erecti, sesquiunciales, ramulo brevi quandoque stipati. *Bracteæ* tomentosæ, pedicellis fructiferis breviores; inferiores floriferorum subæquantes. *Involucra* vix longitudine pedicellorum, sericea, fructifera labio majore tripartito, laciniâ intermediâ angustissimâ. *Nux* ovata, subsessilis, sericea, involucro persistenti duplò longior *stylo* curvato diù coronata, basi barbatâ pilis strictis.

- *6. *S. bracteata*, involucro diphylo: foliolo latiore profundè trifido, spicâ pedunculatâ imbricatâ, bracteis teretibus involucra pedicellata superantibus, foliis incurvis (uncialibus) glabriusculis.

Protea

Protea racemosa. Linn. Mant. 187? (*Herb. Linn.*)

HAB. In Africæ Australis montibus. Franche Hoek. (v. s. in *Herb. Banks.*, Lambert., Soc. Linn.)

DESC. *Frutex* erectus, 6—7 pedalis, (*Niven*) ramosissimus, ramulis ultimis sericeis. *Folia* e basi attenuatâ, adpressâ, suprâ patentia, et falcato—v. sigmoideo-curvata, callo obtusiusculo, adulta glabra, recentiora sericea, quandoque sesquiuncialia. *Pedunculi* terminales, solitarii, spicâ sesquiunciali breviores. *Pedicelli* imbricati, inferiores involucri æquantes, superiores iisdem parùm breviores. *Involucri* sericea, labio majore sæpè tripartito. *Calyx* unguibus tomento adpresso; laminis barbatis villis modicè patentibus, marginalibus laud inflexis.

- *7. *S. sericea*, involucrio diphylo: foliolo latiore tripartito, spicâ sessili imbricatâ: bracteis involucri subsessilia æquantibus, foliis semuncialibus ramulisque sericeis.

HAB. In Africæ Australis montibus. *Gul. Roxburgh M. D.* (v. s. in *Herb. Soc. Linn.*)

DESC. *Frutex* erectus, ramosissimus. *Rami* ramulique virgati, stricti, hi sericei, illi glabri. *Folia* frequentia, imbricata, patenti-erecta, rectiuscula v. leviter incurva, suprâ obsoletissimè sulcata. *Spicæ* solitariæ, vix unciales. *Involucri* labio majore laciniis subulatis, mediâ angustiore. *Calyx* unguibus tomentosis, laminis barbatis.

8. *S. prolifera*, involucrio tetraphyllo: foliolis apice sphacelatis, spicâ conico-capitatâ: floribus subsessilibus.

Protea prolifera. *Thunb. Diss. n. 27.* tab. 4. Prod. 26. Linn. Suppl. 118. Lam. Illust. Gen. 1. p. 238. n. 1233. Willd. Sp. Pl. 1. p. 518. Poiret. Encyc. Botan. 5. p. 654.*

HAB. In Africæ Australis montibus.* Hottentots-Holland :
Roode Zant. (v. s. in Herb. Banks., Lambert., Soc.
Linn.)

DESC. *Frutex* erectus, sesquipedalis, bipedalis, ramosissimus.
Rami ramulique umbellati, hi subsericei, illi rubicundi gla-
briusculi. *Folia* imbricata, conferta, vix unguicularia, ra-
mularum recentiorum sericea. *Spica* sessilis. *Bracteæ* fo-
liaceæ. *Involucri* foliola subulata, demùm glabriuscula.
Calyx densissimè barbatus, villis brevibus sericeis; laminâ
interiori duplò majori, villis marginalibus arcuè inflexis.
Stigma planiusculum, papillâ centrali. *Squamulæ hypogynæ*
quatuor, lineari-subulatæ.

*9. *S. pyramidalis*, involucro tetraphyllo: foliolis acuminatis pe-
dicellos subæquantibus, spicâ erectâ solitariâ sessili oblongo-
pyramidali foliis semuncialibus duplò longiore.

HAB. In Africæ Australis montibus, prope Swellendam. *Gul.*
Roxburgh M. D. (v. s. in Herb. Lambert. et Soc. Linn.)

DESC. *Frutex* erectus, ramosissimus, ramis ramulisque umbel-
latis, pubescentibus. *Folia* confertissima, modicè patentia,
stricta v. parùm incurva, villosiuscula, callo acuto, mucroni-
formi. *Spica* densa, subuncialis. *Bracteæ* foliaceæ, invo-
lucra æquantes. *Involucra* pubescentia, foliolis elatiore basi
subulatis, apice patulis, exteriori parùm angustiore. *Calyx*
laminâ interiori parùm majori, villis marginalibus simplici-
bus. *Stigma* concavum, papillâ centrali. *Squamulæ hypo-*
gynæ lineari-subulatæ. *Receptaculum* barbatum.

*10. *S. polystachya*, involucro tetraphyllo: foliolis apice patulis,
spicis nutantibus aggregatis pedunculatis, foliis uncialibus
curvatis.

HAB.

HAB. In Africæ Australis montibus. *Gul. Roxburgh M. D.*
(v. s. in Herb. Lambert. et Soc. Linn.)

DESC. *Frutex* erectus, ramosissimus. *Rami* ramulique umbellati, rubicundi, ultimi pubescentes. *Folia* conferta, patula, subsigmoideo-curvata, villosa, mucrone acutissimo, novella sericea. *Spicæ* 4—6, reflexæ, sesquiunciales, breviter pedunculatæ, ramulis umbellatis longioribus stipatæ. *Bracteæ* pedicellis ter longiores. *Involucra* foliolis subæqualibus, concavis, lanceolato-subulatis, acuminatis. *Calyx* subæqualis. *Stigma* planiusculum, papillâ centrali. *Nux* brevissimè pedicellata, tenuissimè pubescens.

†† *Involucra* 3—4-flora. *Stigma convexiusculum*. *Calyx subæqualis*.

11. *S. incurva*, spicis racemosis subpedunculatis, bracteis involucro tomentoso (sub-4-floro) brevioribus, foliis incurvis, calycibus inæqualibus.

α. *Spicæ* sæpè aggregatæ. *Bracteæ* pedicellos subæquantes. *Folia* ferè uncialia, inferiora ramulorum glabra.

Protea incurva. *Thunb. Diss. n. 22*. tab. 3. bona. Willd. Sp. Pl. 1. p. 516. Poiret. Encyc. Botan. 5. p. 652.*

β. *Spicæ* solitariæ. *Bracteæ* pedicellos superantes. *Folia* semuncialia, ferè omnia ramulorum sericea.

HAB. In Africæ Australis arenosis humidis subumbrosis; Roode Zant Cascade. (v. s. α. in Herb. Banks., Lambert., Soc. Linn. β. in Herb. Hibbert.)

OBS. I. *Calyx* inæqualis. *Stigma* planiusculum, papillâ centrali.

OBS. II. β. Forsan distincta species : *Foliis* confertissimis, *pedicellis* involucro ferè dimidio brevioribus.

*12. *S. pro-*

- *12. *S. propinqua*, spicâ subpedunculatâ, bracteis subulatis foliaceis involucra subsessilia tomentosa subbiflora æquantibus, foliis semuncialibus strictis ramulisque villosis, calycibus subæqualibus.

HAB. In Africâ Australi. *A. Auge.* (v. s. in Herb. Banks.)

OBS. Spica biuncialis. Pedicelli brevissimi. Nux pedicello manifesto, glabro, tenuissimè pubescens.

13. *S. caudata*, spicâ sessili, bracteis involucrisque ovato-lanceolatis glabriusculis ciliatis, foliis glabris acutis.

Protea caudata. *Thunb. Diss. sec. ic. tab. 2.*

HAB. In Africâ Australi; prope Palmetta River. *Masson.* (v. s. in Herb. Banks.)

DESC. *Frutex* erectus, ramosissimus; ramis umbellatis glabriusculis. *Folia* vix semuncialia, suprâ canaliculata, acuta, stricta. *Spicæ* sæpè aggregatæ, cylindraceæ, densæ, unciales, quandoque biunciales. *Involucra* subsessilia, sæpiùs triflora. *Calyx* subæqualis, barbatus. *Stigma* convexum. *Nux* tenuissimè pubescens.

14. *S. Thunbergii*, spicâ sessili, bracteis involucrisque ovato-lanceolatis villosis, foliis calyce longioribus acutis canaliculatis ramisque pilosis.

Protea caudata. *Thunb. Diss. n. 23.** secund. descript.

HAB. In Africæ Australis montosis. *D. Niven.* (v. s. in Herb. Hibbert.)

DESC. *Frutex* erectus, ramosissimus. *Folia* vix semuncialia, conferta, imbricata, stricta v. parùm incurva. *Spica* cylindracea, densa, uncialis, sesquiuncialis. *Involucra* brevissimè pedicellata, bracteis parùm longiora, villis persistentibus.

Calyx

Calyx subæqualis, laminis brevissimè barbatis, subsericeis. *Stigma* convexum. *Nux* tenuissimè pubescens, pedicello brevissimo, crasso, glabro.

*15. *S. brevifolia*, foliis calyce brevioribus obtusiusculis subsericeis triquetris, spicis densis, bracteis involucrisque pubescentibus.

HAB. In *Africae Australis* montosis. *D. Masson.* (v. s. in *Herb. Banks. et D. Aiton.*)

DESC. *Frutex* erectus, ramis umbellatis, virgatis, pubescentibus. *Folia* subtriquetra, suprà canaliculata, patenti-erecta, villosiuscula, subtrilinearia. *Spica* solitaria, sessilis, uncialis, sesquiuncialis, rachi pedicellis bracteisque pubescentibus. *Bracteæ* e basi membranaceâ, lanceolatâ, subulatâ. *Involucra* brevissimè pedicellata, 2—3-flora. *Calyx* æqualis. *Stigma* convexum, papillâ elevatiore. *Squamulæ hypogynæ* quatuor subulatæ.

12. ADENANTHOS.

Labill. Nov. Holl. 1. p. 28.

CHAR. GEN. *Calyx* quadrifidus, infrà circumscissus. *Squamulæ* quatuor hypogynæ, basi persistenti calycis adnatæ. *Pistillum* calyce longius. *Stigma* verticale. *Nux* ventricosa. *Involucrum* uniflorum, imbricatum, 4—8-phyllum.

HABITUS. Frutices. *Folia sparsa, in diversis varia.* Flores axillares, solitarii, rubicundi; rarò terminales, subaggregati, lutescentes.

1. *A. obovata*, foliis obovatis integerrimis glabris.

Adenanthos obovata. *Labillard. Nov. Holl.* 1. p. 29.* tab. 37.

HAB. In collibus saxosis oræ australis *Novæ Hollandiæ*; *Lewins Land.* (ubi v. v.)

2. *A. cu-*

2. *A. cuneata*, foliis cuneatis sericeis apice dentato-crenato.
Adenanthos cuneata. *Labillard. Nov. Holl.* 1. p. 28.* *tab.* 36.
 HAB. In Novæ Hollandiæ oræ australi; Lewins Land: prope littora. (ubi v. v.)
3. *A. sericea*, foliis filiformibus biternatis sericeis, floribus axillaribus solitariis, stylo glabro.
Adenanthos sericea. *Labillard. Nov. Holl.* 1. p. 29.* *tab.* 38.
 HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in arenosis prope littora. (ubi v. v.)
4. *A. terminalis*, foliis filiformibus trifidis: laciniis lateralibus bifidis intermediâ indivisâ, floribus terminalibus solitariis ternisve, stylo villosa.
 HAB. In Novæ Hollandiæ orâ australi. Flinders' Land: in depressis prope littora. (ubi v. v.)

13. SIMSIA.

- CHAR. GEN. *Calyx* tetraphyllus, regularis, laminis reflexis. *Stamina* exserta. *Antheræ* tandem liberæ, primò cohærentes, lobis proximis vicinarum loculum constituentibus. *Stigma* dilatatum, concavum. *Nux* obconica.
- HABITUS. Frutices *humiles, glabri*. Folia *alterna, filiformia, dichotoma, petioli basi dilatatâ*. Capitula *globosa, parva, terminalia, racemosa, v. paniculata, involucri brevi v. nullo*. Flosculi *flavi, glabri, unibracteati*.
- I have named this genus in honour of Dr. John Sims the respectable editor of the Botanical Magazine.

- *1. *S. tenuifolia*, capitulis nudis, paniculæ ramis subunifloris bractcolatis.

HAB.

HAB. IN Novæ Hollandiæ orâ australi : Lewins Land ; ad latera saxosa collium. (ubi v. v.)

*2. *S. anethifolia*, capitulis involucratis bracteolis imbricatis, paniculæ ramis multifloris : ramulis capitula subæquantibus.

HAB. IN Novæ Hollandiæ orâ australi : Lewins Land ; in arenosis prope littora. (ubi v. v.)

14. CONOSPERMUM.

Smith, Linn. Trans. vol. 4. Exot. Bot. Gart. Carp. 3. p. 198. t. 215.

CHAR. GEN. *Calyx* tubulosus, ringens, laciniâ supremâ basi fornicatâ. *Antheræ* tres, inclusæ, laterales dimidiatæ, superior biloba : primò cohærentes, lobis proximis vicinarum loculum constituentibus. *Stigma* liberum. *Nux* obconica, papposa.

HABITUS. Frutices. Folia sparsa, integerrima, plana, rariùsve filiformia. Spicæ axillares v. terminales, compositæ, sensim florentes, hinc corymbosæ. Flores sôlitarii, scssiles, unibracteati, albi v. cærulescentes ; Calyce deciduo ; Bracteâ cucullatâ persistenti.

OBS. Jussieu and Ventenat have referred this genus to the natural order Thymeleæ ; but that it is a genuine Proteacea, as Dr. Smith has considered it, is proved by the erect embryo, the terminal style, and the æstivation of the Calyx ; and is rendered evident by its affinity to Simsia, which, with the more usual appearance of this order, agrees with Conospermum in the structure of its Antheræ.

† *Calycis laciniæ acutæ, tubo vix longiores.* Conosperma vera.

1. *C. ellipticum*, foliis ovali-oblongis obtusis mucronulatis aveniis, pedunculis axillaribus.

Conospermum ellipticum. *Smith in Rees. Cyclop.*

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in ericetis aridis. (ubi v. v.)

2. *C. taxifolium*, foliis lanceolato-linearibus acutis mucronatis tenuissimè pubescentibus verticalibus, basi tortis, pedunculis axillaribus.

Conospermum taxifolium. *Smith in Rees. Cyclop.*

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in ericetis. (ubi v. v.)

3. *C. ericifolium*, foliis subulato-filiformibus imbricatis, spicis axillaribus pedunculo brevioribus.

Conospermum ericifolium. *Smith in Rees. Cyclop.*

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in ericetis. (ubi v. v.)

4. *C. longifolium*, foliis oblongis linearibusve planis venosis, pedunculisque elongatis scapiformibus, corymbis decompositis, calycis limbo extùs pubescenti tubum vix æquante.

Conospermum longifolium. *Smith Exot. Bot. 2. p. 45. t. 82.*

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in ericetis collibusque saxosis. (ubi v. v.)

- *5. *C. tenuifolium*, foliis lineari-filiformibus subcanaliculatis aveniis, pedunculisque elongatis scapiformibus, corymbis subsimplicibus, calycis limbo extùs pubescenti tubo longiore.

HAB. In Novæ Hollandiæ orâ orientali, prope Port Jackson ;
in collibus arenosis prope littora. (ubi v. v.)

- *6. *C. caruleum*, foliis oblongis lanceolatisve planis venosis, pedunculisque

culisque elongatis scapiformibus, corymbis compositis, calycis limbo glaberrimo tubo longiore.

HAB. In Novæ Hollandiæ, orâ australi: Lewins Land. (ubi v. v.)

†† *Calycis laciniae caudatæ. Chilurus.*

*7. *C. teretifolium*, foliis teretibus pedunculisque elongatis, corymbis compositis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

*8. *C. capitatum*, foliis linearibus elongatis tortilibus, capitulis sessilibus e spiculis paucifloris congestis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus apricis graminosis. (ubi v. v.)

††† *Incertæ tribus.*

*9. *C. distichum*, foliis filiformibus subdistichis curvatis, spicis axillaribus indivisis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis. (ubi v. v. flor. delaps.)

15. SYNAPHEA.

CHAR. GEN. *Calyx* tubulosus, ringens, laciniâ supremâ latiore. *Antheræ* tres, inclusæ, laterales dimidiatæ, inferior biloba: primò cohærentes, lobis proximis vicinarum loculum constituentibus! *Stigma* filamentis superiori sterili connatum! *Nux* obovata.

HABITUS. Frutices humiles. Folia sparsa, plana, pulcherrimè reticulata, circumscriptione cuneiformia, lobata, inferiora ejusdem fruticis sæpiùs indivisa: petioli basi dilatata semivaginant.

Spicæ axillares v. terminales, simplices v. ramosæ. Flores alterni, solitarii, sessiles, unibracteati. Calyx flavus, deciduus, quadripartibilis. Bractea cucullata, persistens.

ETYM. συνάφη connectio, ob peculiarem cohærentiam stigmatis v. apicis styli cum filamento sterili.

- *1. *S. favosa*, foliis oblongo-cuneiformibus indivisis trilobisque : lobis integris, petiolis spicisque glabris, stigmate bicorni.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in collibus saxosis. (ubi v. v.)

- 2 *S. dilatata*, foliis apice dilatatis trilobis : lobis inciso-dentatis, petiolis spicisque villosis, stigmate bicorni.

Conospermum reticulatum. *Smith in Rees. Cyclop.*

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in collibus saxosis. (ubi v. v.)

- *3. *S. petiolaris*, foliis rameis petiolos subæquantibus tripartitis : lobis divis planis ; infimis trilobis integrisque, spicis elongatis ramosis, stigmate acuto.

Polypodium spinulosum. *Burm. Ind. p. 233. t. 67. f. 1.* vel ad hanc v. ad plantam congenerem pertinere videtur.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in collibus saxosis. (ubi v. v.)

- *4. *S. polymorpha*, foliis rameis brevissimè petiolatis tripartitis canaliculatis : lobis subdivisis ; infimis indivisis trilobisque, spicis simplicibus pedunculo longioribus, stigmate acuto.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in collibus saxosis. (ubi v. v.)

16. FRANKLANDIA.

CHAR. GEN. *Calyx* hypocrateriformis, limbo quadripartito, plano, deciduo, tubo persistenti. *Antheræ* inclusæ, calyce adnatæ! *Squamæ* hypogynæ, in vaginam connatæ. *Nux* fusiformis, pedicellata, apice dilatato papposo.

HABITUS. Frutex *glaber*. Folia *alterna*, *filiformia*, *dichotoma*. Spicæ *axillares*, *indivisæ*, *floribus alternis*, *unibracteatis*, *sordidè flavis*. Pollen *sphæricum*. Cotyledones *brevissimæ*!

This genus is named in honour of Sir Thomas Frankland, baronet, to whom English botany is much indebted, and whose valuable observations and excellent figures of submarine plants it is hoped he may be induced to communicate to the public.

* FRANKLANDIA *fucifolia*.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis humidis. (ubi v. v.)

17. SYMPHIONEMA.

CHAR. GEN. *Calyx* regularis, tetraphyllus, basi cohærens, medio staminifer. *Filamenta* apice cohærentia! *Antheræ* distinctæ. *Glandulæ* nullæ hypogynæ. *Ovarium* dispermum. *Stigma* subtruncatum. *Nux* monosperma, cylindræa.

HABITUS. Suffrutices v. Herbæ *glabræ*, *pilisve raris glandulosis*. Folia *tripartita*, *lobis divisis*; *inferiora opposita*! Spicæ *terminales et e summis alis*, *simplices*. Flores *alterni*, *sessiles*, *unibracteati*. *Calyx flavus*, *deciduus*. *Bractææ cucullatæ*, *persistentes*.

*1. *S. palu-*

- *1. *S. paludosum*, laciniis foliorum subulatis semiteretibus, rachibus bracteisque glaberrimis.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in cricetis paludosis. (ubi v. v.)

- *2. *S. montanum*, laciniis foliorum planis linearibus uninervibus, rachibus bracteisque pubescentibus pilis glandulosis brevissimis.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in rupibus humidis. (ubi v. v.)

18. AGASTACHYS.

CHAR. GEN. *Calyx* regularis, tetraphyllus, basi cœhærens, medio staminifer. *Filamenta* distincta. *Glandulæ* nullæ hypogynæ. *Ovarium* sessile, monospermum, trigonum. *Stigma* unilaterale.

HABITUS. Frutex glaberrimus. Folia sparsa, integerrima, plana. Spicæ numerosæ, terminales et e summis alis, simplices. Flores alterni, sessiles, unibracteati. *Calyx* flavescens, deciduus. Pistillum staminibus brevius. Bractæ cucullatæ, persistentes.

ETYM. *αγασταχης* spicis abundans.

AGASTACHYS *odorata*.

HAB. In Insulæ Diemen plagis australioribus; prope Adventure Bay: ubi primùm a D. Nelson detecta, nuperiùs lecta a D. G. Caley. (v. s. in Herb. Banks.)

19. CENARRHENES. Labill. Nov. Holl. 1. p. 36. t. 50.

CHAR. GEN. *Calyx* tetraphyllus, regularis, foliolis suprâ angustatis, deciduus. *Stamina* basi calycis inserta. *Glandulæ* quatuor

quatuor hypogynæ, staminiiformes. Ovarium sessile, monospermum. Stigma simplex. Drupa baccata.

HABITUS. Arbor glabra. Folia alterna; plana, dentato-serrata, nitida. Spicæ axillares, simplices. Flores alterni, sessiles, unibracteati.

Obs. Labillardiere considers this genus as most nearly related to Lauri. Jussieu, however, has (in *Annales du Museum*, v. 5 p. 224.) stated sufficient reasons for excluding it from that order, but has not attempted to determine its affinity. I have ventured to place it in *Proteaceæ*, from the structure of its fruit, stamina and calyx, and the only circumstance in which it differs from them, consists in its having (according to Labillardiere) four barren stamina; but even these occupy the place of the glands or scales usually found in the order, and the resemblance they bear to stamina in this genus, may assist in explaining their nature in all: nor does their being in most cases secreting organs render this view of their origin improbable; for the function of secretion, which, as it is far from universal, must be considered as only of secondary importance in assisting impregnation, is more frequently accomplished by the modification of some of the usual parts of the flower than by the production of an additional organ.

CENARRHIENES *nitida*. Labill. Nov. Holl. 1. p. 36.* t. 50.

HAB. In Insulæ Diemen plagis australioribus. Labillardiere. (v. s. cum fructu sed floribus delapsis in Herb. D. Lambert.)

20. PERSOONIA. Smith in Linn. Trans. iv. Gart. Carp. 3. p. 218. t. 220. Pentadactylon. Gart. l. c. p. 219. t. 220. Linkia. Cav. Ic. 4.

CHAR. GEN. Calyx tetraphyllus, regularis, foliolis medio stamiferis, suprà recurvis, deciduus. Stamina exserta. Glandulæ

dulæ quatuor hypogynæ. *Ovarium* pedicellatum, 1-loculare; 1—2-spermum. *Stigma* obtusum. *Drupa* baccata; *Nucæ* 1—2-loculari!

HABITUS. Frutices v. Arbusculæ, cortice in quibusdam scarioso-lamellosa. Folia sparsa, integerrima, sæpius plana. Pedunculi axillares, solitarii, ebracteati, v. racemosi, unibracteati. Flores flavi. Pedicellus ovarii in quibusdam articulatus! Cotyledones sæpius plures!

- *1. *P. teretifolia*, foliis filiformibus exsulsis, pedunculis unifloris solitariis, antheris acuminatis, stylis ovario brevioribus.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

- *2. *P. microcarpa*, foliis filiformibus canaliculatis, pedunculis solitariis geminis ternisve, antheris muticis, stylis ovario aliquoties longioribus, stigmate cernuo.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis paludosis. (ubi v. v.)

- *3. *P. pinifolia*, foliis filiformibus laxis, spicâ foliatâ elongatâ pyramidali: foliis floralibus abbreviatis, ovario monospermo.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis et ad ripas rivulorum. (ubi v. v.)

4. *P. juniperina*, foliis subulatis strictis pungentibus, pedunculis axillaribus sparsis spicisve foliatis abbreviatis, ovariiis dispersis glabris.

Persoonia juniperina. Labill. Nov. Holl. 1. p. 33.* tab. 45.

HAB. In Insulâ Diemen: et Novæ Hollandiæ orâ australi, prope Port Phillip: in ericetis aridis lateribusque collium. (ubi v. v.)

*5. *P. hir-*

5. *P. hirsuta*, foliis linearibus hirsutis scabris margine recurvis, pedunculis axillaribus, ovariis monospermis sericeis.

Persoonia hirsuta. *Pers. Syn.* 1. p. 118.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis humidis. (ubi v. v.)

- *6. *P. mollis*, foliis longo-lanceolatis villosis subtùs mollissimis, calycibus barbatis, ovariis dispermis glabris.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: ad ripas arenosas fluviorum. (ubi v. v.)

7. *P. linearis*, foliis angusto-linearibus elongatis glabris, pedunculis erectis calycibusque pubescentibus, pedicello ovarii inarticulato, caule arborescenti: cortice lævi.

Persoonia linearis. *And. Repos.* 77. *Vent. Malmais.* 32. *Sims. Bot. Mag.* 760. *Pers. Syn.* 1. p. 118.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in campis et collibus. (ubi v. v.)

- *8. *P. lucida*, foliis lanceolato-linearibus elongatis glabris, pedunculis erectis calycibusque pubescentibus, pedicello ovarii inarticulato, caule arborescenti: cortice scarioso-lamellosa.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in montosis ad ripas fluviorum. *D. Fer. Bauer.* (v. s.)

9. *P. virgata*, foliis linearibus oblongo-linearibusve sparsis verticalibus glaberrimis margine lævibus, pedunculis erectis calycibusque glabris, caule arborescenti: cortice lævi.

HAB. In Novæ Hollandiæ orâ orientali; prope Sandy Cape: in arenosis prope littora. (ubi v. v.)

- *10. *P. flexifolia*, foliis lanceolato-linearibus mucronatis confertis basi tortis utrinque lævibus punctis crystallinis micantibus; marginibus scabris, calycibus glabris, caule fruticoso.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad latera saxosa collium. (ubi v. v.)

- *11. *P. scabra*, foliis lineari-lanceolatis mucronatis utrinque scabris punctis crystallinis aliisque minutissimis opacis conspersis, calycibus pubescentibus.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

- *12. *P. spathulata*, foliis lanceolato-spathulatis mucronatis concaviusculis utrinque scaberrimis punctis crystallinis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

- *13. *P. nutans*, foliis linearibus lævibus, pedunculis axillaribus recurvis calycibusque glabris.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in sylvis solo arenoso, ad radices montium. (ubi v. v.)

- *14. *P. falcata*, foliis elongato-lanceolatis basi attenuatis subpetiolatis falcatis aversis coriaceis, antheris acuminatis, caule arborescenti: cortice lamelloso.

HAB. In Novæ Hollandiæ orâ orientali; Endeavour River: Jos. Banks, bart.: septentrionali, Carpentaria; prope littora. (ubi v. v. cum fruct. matur. flor. delaps.)

15. *P. lanceolata*, foliis lanceolatis ellipticisve mucronatis glabris lævibus,

lævibus, pedunculis axillaribus unifloris, calycibus pube adpressâ subsericeis, pedicello ovarii inarticulato.

Persoonia lanceolata. *And. Repos.* 74. *Pers. Syn.* 1. p. 118.

β. *Persoonia latifolia.* *And. Repos.* 280?

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in campis ericetisque, prope littora. (ubi v. v.)

16. *P. salicina*, foliis lanceolato-oblongis inæquilateralibus aversis, racemis lateralibus pedunculisve axillaribus unifloris, calycibus glabriusculis, caule arborescenti: cortice scarioso-lamelloso.

Linkia lævis. *Cavan. Ic.* 4. p. 61. t. 389? an varietas *P. lanceolata*?

Persoonia salicina. *Pers. Syn.* 1. p. 118.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in campis collibus et sylvis. (ubi v. v.)

17. *P. ferruginea*, foliis ellipticis æquilateralibus venosis adversis, pedunculis axillaribus multifloris calycibusque ferrugineo-tomentosis, caule erecto.

Persoonia laurina. *Pers. Syn.* 1. p. 118.

Persoonia ferruginea. *Smith. Exot. Bot.* 2. p. 47. t. 83.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in campis. (ubi v. v.)

- *18. *P. prostrata*, foliis ovalibus obtusis margine pubescentibus, pedunculis axillaribus uni-v. paucifloris, caule procumbente.

HAB. In Novæ Hollandiæ orâ orientali; prope Sandy Cape; in arenosis prope littora. (ubi v. v. cum fruct. matur. flor. delaps.)

- *19. *P. elliptica*, foliis ellipticis venosis, racemis lateralibus, calycibus glabris, pedicello ovarii articulado.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad latera saxosa collium. (ubi v. v.)

- *20. *P. articulata*, foliis elongato-lanceolatis æquilateralibus glabris, racemis lateralibus pedunculisve unifloris, calycibus glabriusculis, ovarii pedicelli articulo inferiore glandulas hypogynas æquante.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

21. *P. longifolia*, foliis elongato-linearibus falcatis, racemis lateralibus pedunculisve unifloris, calycibus pube adpressâ tectis, ovarii pedicelli articulo inferiore glandulis hypogynis longiore.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

22. *P. graminea*, foliis rameis linearibus longissimis margine recurvis, racemis secundis multifloris, calycibus glabris, caule suffruticoso abbreviato.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land; ad ripas arenosas stagnorum. (ubi v. v.)

21. BRABEIIUM.

Linu. Gen. Pl. 1. n. 85. *Mant.* 168. *ed. Schreb.* n. 1580.

CHAR. GEN. *Calyx* tetraphyllus, regularis. *Stamina* basi calycis inserta. *Vaginula* hypogyna. *Ovarium* sessile. *Stigma* verticale. *Drupa* exsucca, monosperma, putamine osseo.

HABITUS.

HABITUS. Arbor. Folia (Theophrasti,) *verticillata, serrato-dentata*.
Spicæ axillares, floribus fasciculatis, ternis pluribusve, bractea
communi subtensis, plerisque masculis pistillo imperfecto.

BRABEIIUM *stellatifolium*.

Arbor hexaphylla æthiopica, foliis circa caulem ad intervalla
 senis. *Pluk. Alm. 47. t. 265. f. 3.*

Amygdalus æthiopica fructu holosericeo. Brœyn. cent. 1. t. 1.

Brabejum. Hort. Cliff. 36. Roy. Lugd. Bat. 400.

Brabejum stellatifolium. Linn. Sp. Pl. ed. i. p. 121. ed. ii.
*p. 177. Mant. p. 332.**

*Brabyia. Mant. p. 137.**

Brabeium stellulifolium. Linn. Syst. Veg. xiii. p. 764. Hoult.
Nat. Hist. par. 2. t. 6. p. 424. tab. 37. ed. Germ. t. 4. p. 647.
t. 37. f. 1. Lam. Encyc. Botan. 1. p. 459? Illust. Gen. tab.*
847. Willd. Sp. Pl. 4. p. 972.

Brabeium stellatum. Thunb. Prod. 31.

HAB. In Africâ Australi, prope Prom. B. Spei. (v. s. in Herb.
 Banks. Lambert.)

22. GUEVINA.

Molin. Chil. 198. Juss. Gen. 424.

Quadria. Gen. Flor. Peruv. et Chil. 16. tab. 33. Gært. Carp. 3.
p. 220. tab. 220.

CHAR. GEN. *Calyx tetraphyllus, irregularis, foliolis tribus revo-*
lutis, quarto erecto. Antheræ apicibus concavis calycis im-
mersæ. Glandulæ duæ hypogynæ, anticæ. Ovarium di-
spermum. Stigma obliquum. Drupa putamine osseo, mo-
nospermo.

HABITUS. Arbor. Folia *alterna, pinnata. Racemi axillares, flori-*
bus geminis, pedicellatis, paribus unibracteatis. Calyx tomen-
tosus, deciduus. Drupa parùm carnosa, nucleo amygdalino.

Guevina

Guevina Avellana. *Molin. Chil.* 198.*

Nebu subrotundo fraxini folio. *Feuill.* 3. p. 46. t. 33.

Quadria heterophylla. *Flor. Peruv. et Chil.* 1. p. 63. t. 99. f. b.

HAB. In sylvis et ad radices montium Chilensium. (v. s. in Herb. Banks. a Dombey.)

23. BELLENDENA.

CHAR. GEN. *Calyx* tetraphyllus, regularis, patens. *Stamina* hypogyna. *Glandulæ* nullæ hypogynæ. *Ovarium* dispermium. *Stigma* simplex. *Samara*? aptera, 1—2-sperma.

HABITUS. Frutex *glaberrimus*. Folia *sparsa, plana, apice trifida*. Spica *racemosa, terminalis; floribus sparsis, raro geminatis*. *Calyx albus citò deciduus*. *Ovarium cum pedicello suo articulatum*. *Samara colorata margine altero sulcato*.

This genus is named in honour of JOHN BELLENDEN KER, esq. whose botanical merits are established by an excellent Essay on *Ensateæ*, published in the Annals of Botany, and by his elaborate disquisitions on the Genera of that and other monocotyledonous families, in the latter volumes of the Botanical Magazine.

BELLENDENA montana.

HAB. In Insulâ Diemen: in summis montibus. (ubi v. v.)

24. ANADENIA.

CHAR. GEN. *Calyx* tetraphyllus, apicibus concavis staminiferis. *Antheræ* immersæ. *Glandulæ* nullæ hypogynæ. *Ovarium* dispermium. *Stigma* conicum. *Folliculus* unilocularis, abortionè monospermus. *Semen* apterum.

HABITUS. Frutices. (Grevilleis affines:) pube dum adsit medio affixâ. Folia *pinnatifida v. lobata, circumscriptione cuneiformia*.
Spicæ

Spicæ terminales, v. laterales, floribus geminatis, paribus unibracteatis, summis quandoque præcocioribus !

ETYM. α priv. et ἀδρ glandula.

- *1. *A. pulchella*, foliis pinnatifidis pilosiusculis : lobis cuneiformibus apice trifidis v. inciso-pinnatifidis, folliculis viscidis.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in collibus saxosis. (ubi v. v.)

- *2. *A. trifida*, foliis cuneiformibus triplinervibus aveniis trifidis (unguicularibus) subtùs argenteis : lobis integerrimis lateralibusve 2—3-dentatis.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in sylvis solo arenoso. (ubi v. v.)

Obs. Forte generis distincti, ob calycem irregularem, stigma paullò diversum, et folliculum ligneum bipartibilem.

- *3. *A. ilicifolia*, foliis cuneiformibus (uncialibus) venosis subtùs argenteis basi attenuatis extra medium pinnatifido-incisis.

HAB. In Novæ Hollandiæ orâ australi ; Flinders' Land : in arenosis prope littora. (ubi v. v. floribus inexpansis absque fructu.)

25. GREVILLEA.

CHAR. GEN. *Calyx* irregularis foliolis laciniisve secundis, apicibus cavis staminiferis. *Antheræ* immersæ. *Glandula* unica hypogyna, dimidiata. *Ovarium* dispermum. *Stigma* obliquum, depressum (rarò subverticale, conicum). *Folliculus* unilocularis, dispermus, loculo centrali. *Semina* marginata v. apice brevissimè alata.

HABITUS. Frutices rarò Arbores, *pube dum adsit medio affixâ*. Folia alterna, indivisa v. pinnatifida. Spicæ modò elongatæ racemosæ, modò abbreviatæ corymbosæ v. fasciculiformes, involucri nullo,

nullo, pedicellis geminatis, rarò pluribus fasciculisve unibracteatis. Calyces sæpissimè rubicundi, nunc flavi; in quibusdam obliquè inserti. Folliculi vel coriacei, ovati, stylo toto coronati; seminibus ovalibus angustissimè marginatis et apice brevissimè alatis: lignei, vel subrotundi, pseudo-bivalves basi tantum styli mucronati; seminibus undique alatis.

This extensive genus, of which a few of the least remarkable species have been already published as *Embothriums* by Dr. Smith, Cavanilles, and others, I have dedicated to the right honourable CHARLES FRANCIS GREVILLE, one of the Vice-Presidents of the Royal Society; a gentleman eminently distinguished for his acquirements in natural history, and to whom the botanists of this country are indebted for the introduction and successful cultivation of many rare and interesting plants.

Grevillea is probably the most extensive genus of *Proteaceæ* in New Holland, and admits of division into several very natural sections, most of which are readily distinguishable by more than one character, existing either in the parts of fructification or in habit; notwithstanding which, I have not ventured to separate them into distinct genera, as I probably should have done, had I been acquainted with fewer species; but have given to each section a proper name, a practice that may perhaps be advantageously adopted in all large genera, where they are thus capable of natural subdivision. It must be unnecessary to add that proper names can in this manner be given only where the sections are perfectly natural, and not in those cases where genera have been subdivided from single characters, and those too of but little importance, as in Thunberg's division of *Protea*, from the form and division of the leaves; to which may be opposed the

the masterly subdivision of the same genus previously given by Linneus in the *Mantissa*, whose sections, though apparently depending on single characters, are evidently formed from a contemplation of the whole structure, as far as it was then understood; and it is remarkable that, with the exception of the first species, with whose real structure he was necessarily unacquainted, the rest are arranged, and even divided into sections, in most cases corresponding with the genera proposed in the present essay.

† *Folliculicoriacei, stylo toto stigmatæque depresso coronati. Semina ovalia, angustissimè marginata, apiceque brevissimè alata.*

A. LYSSOSTYLIS.

Folia omnia integerrima (in plerisque marginibus refractis v. replicatis pseudo-3-nervia).

Flores fasciculati v. in racemo abbreviato. Stylus glaber. Folliculus ecostatus.

1. *G. punicea*, foliis elliptico-oblongis basi subattenuatis marginibus refractis, ramulis floriferis racemoque abbreviato recurvis, pistillis uncialibus, barbâ interiore calycis oblongâ dimidium inferiorem unguium æquante.

Embothrium sericeum β. *Smith. New Holl. 27. t. 9. f. 5. β.*

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis subhumidis. (ubi v. v.)

- *2. *G. dubia*, foliis ellipticis marginibus refractis, ramis ramulisque tomentosis, floriferis racemoque abbreviato recurvis, pistillis unciâ brevioribus.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in saxosis subhumidis prope littora. (ubi v. v.)

Obs. Nimis affinis præcedenti.

3. *G. sericea*, foliis ellipticis oblongisve obtusis mucronatis marginibus refractis, ramulis floriferis erectis, racemis abbreviatis recurvis, pistillis semuncialibus, barbâ interiori calycis dimidio inferiore unguium brevior.

Embothrium sericeum. *Smith. New Holl.* 25. t. 9. f. 1, 2, 3, 4.
Willd. Sp. Pl. 1. p. 539. *And. Repos.* 100. *Sims. in Bot. Mag.* 862.

Embothrium cytisoides. *Cav. Ic.* 4. p. 60. t. 386. f. 2.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson :
 in saxosis prope littora marina et ad rivulorum ripas.
 (ubi v. v.)

4. *G. linearis*, foliis lineari-lanceolatis acutis mucronatis marginibus refractis, racemis abbreviatis erectiusculis, stylis apice glaberrimis.

Embothrium linearifolium. *Cavan. Ic.* 4. p. 59. t. 386. f. 1.

Embothrium lineare. *And. Repos.* 272.

Embothrium sericeum γ. *Smith. New Holl.* 27. t. 9. f. 6.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson :
 in saxosis præsertim prope littora. (ubi v. v.)

- *5. *G. stricta*, foliis lanceolato-linearibus acutis mucronatis marginibus refractis costâque denticulato-scabris, stylis apice sericeis.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson :
 ad ripas saxosas fluviorum. (ubi v. v.)

- *6. *G. riparia*, foliis elongato-linearibus marginibus refractis costâque lævibus, stylis apice glaberrimis, pistillis quadrilinaribus : pedicello ovarium superante, barbâ interiori calycis densâ.

HAB.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : ad ripas fluviorum. (ubi v. v.)

- *7. *G. parviflora*, foliis subulato-linearibus marginibus refractis costâque lævibus, ramulis glabriusculis, calycibus ferrugineis barbâ interiori obsoletâ, pistillis bilinearibus : pedicello ovarium vix æquante.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in fruticetis a littore remotis. (ubi v. v.)

- *8. *G. juniperina*, foliis subulatis fasciculatis divaricatis marginibus refractis, ramulis villosis teretiusculis, pistillis semuncialibus pedunculo partiali quadruplò longioribus.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in ericetis rariùs. *D. G. Caley*, & *A. Gordon*. (v. s.)

- *9. *G. australis*, foliis lanceolato-subulatis unciâ brevioribus margine subrecurvis, suprâ pube deciduâ conspersis subtùs sericeis, ramis ramulisque tomentosis teretibus.

HAB. In Insulâ Diemen ; plagis australioribus : ad fluviorum ripas. (v. v. absque flor. v. fruct.)

- *10. *G. tenuifolia*, foliis subulatis margine revolutis unciâ brevioribus, fasciculis sessilibus, pistillis bilinearibus.

HAB. In Insulâ Diemen ; prope Port Dalrymple : ad ripas saxosas fluviorum. (ubi v. v.)

- *11. *G. pauciflora*, foliis lineari-oblongis planiusculis obtusis mucronulatis suprâ lævibus subtùs subsericeis : inferioribus glabriusculis, fasciculis 2-4-floris erectis, calycibus nudiusculis pistillum subæquantibus.

HAB. In Novæ Hollandiæ orâ australi; Flinders' Land: in depressis apricis prope littora. (ubi v. v.)

- *12. *G. aspera*, foliis lineari-oblongis obtusis mucronulatis suprâ punctato-asperis subtùs argenteis, racemis abbreviatis recurvis, stylis brevissimis, stigmatе cochleariformi.

HAB. In Novæ Hollandiæ orâ australi; Flinders' Land: in ericetis aridis. (v. v. flor. delaps. fruct. matur.)

- *13. *G. concinna*, foliis linearibus margine revolutis lævibus erectis, racemis recurvis secundis multifloris, ovariis lanatis, stylis glaberrimis calyce subsericeo duplò longioribus.

Obs. A reliquis sectionis facie differt.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in sterilibus prope littora marina. (ubi v. v.)

† B. PTYCHOCARPA.

Folia omnia integerrima. Flores fasciculati v. in racemo abbreviato, floribus superioribus præcocioribus! Stylus hirsutus v. tomentosus. Ovarium subsessile. Folliculus costatus!

- *14. *G. arenaria*, foliis oblongis obtusis mucronulatis, racemis recurvis paucifloris: pistillis tomentosis.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: ad ripas arenosas fluviorum. (ubi v. v.)

- *15. *G. montana*, foliis lanceolatis acutis suprâ læviusculis subtùs sericeis, floribus geminatis, pedunculis glabris calyces nudiusculos subæquantibus, pistillis hirsutis, tomento ramulorum arcuè adpresso.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in montosis. (v. s.)

*16. *G. acu-*

- *16. *G. acuminata*, foliis lanceolatis subacuminatis mucronatis suprâ punctato-scabris subtùs cinereo-tomentosis, racemis paucifloris porrectis recurvisve, pistillis hirsutis, calycibus demùm glabriusculis, ramulis pubescentibus.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in montosis. (v. s.)

4. *G. cinerea*, foliis ellipticis obovatisve mucronatis suprâ scabriusculis subtùs cinereo-tomentosis, racemis paucifloris recurvis, pistillis hirsutis, calycibus pedunculisque lanatis.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in montosis ad ripas saxosas fluviorum. (ubi v. v.)

- *18. *G. mucronulata*, foliis obovatis obtusis mucronulatis suprâ scabris nitentibus subtùs parùm sericeis, racemis abbreviatis, pistillis hirsutis, calycibus pilosiusculis pube adpressâ.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis. (ubi v. v.)

- *19. *G. Baueri*, foliis oblongis obtusis mucronulatis utrinque glabris lævibus, racemis abbreviatis, pistillis hirsutis, calycibus pedunculisque glaberrimis.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in depressis a littore remotis. (ubi v. v.)

† C. ERIOSTYLIS.

Folia omnia integerrima. Flores fasciculati, subumbellati. Pistillum lanatum, pedicellatum. Folliculus ecostatus.

- *20. *G. occidentalis*, foliis lanceolatis suprâ punctatis scabris subtùs sericeis, fasciculis axillaribus terminalibusque, calycibus

cibus utrinque stylisque lanâ patulâ cinereis, stigmate mutico.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in sylvis solo sterili. (ubi v. v.)

- *21. *G. sphacelata*, foliis oblongis lanceolatisve suprâ punctis minutis scabriusculis subtùs sericeis, fasciculis terminalibus, calycibus extùs ferrugineo-tomentosis intùs stylisque cinereo lanatis, stigmate mutico.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in saxosis. (ubi v. v.)

- *22. *G. phyllicoides*, foliis lineari-lanceolatis: suprâ punctato-scabris superioribus villosis; subtùs pubescentibus cinereis, stigmatibus ovalibus appendice duplò longioribus.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in montibus saxosis. (ubi v. v.)

23. *G. buxifolia*, foliis ellipticis suprâ punctatis scabris subtùs tomento adpresso cinereis, stigmatibus orbiculatis appendicem recurvum vix æquantibus.

Embothrium buxifolium. *Smith. New. Holl. 29. t. 10. Willd. Sp. Pl. 1. p. 538. And. Repos. 218.*

Embothrium genianthum. *Cav. Ic. 4. p. 60. t. 387.*

HAB. In Novæ Hollandiæ orâ australi; prope Port Jackson: in ericetis saxosis. (ubi v. v.)

† D. PLAGIOPODA.

Folia integerrima v. divisa. Racemus thyrsiformis. Pedicellus ovarii accretus apice obliquo pedunculi, cui utrinque foliola duo calycis unum supra alterum inserta!

- *24. *G. Goodii*, foliis integerrimis oblongis undulatis venosis
utrinque

utrinque glabris, racemis elongatis pedunculatis, caulibus prostratis.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria, et Arnhem's Land: in depressis arenosis, prope littora. (ubi v. v.)

*25. *G. venusta*, foliis pinnatifidis, v. trifidis passimque indivisis subtùs sericeis, racemis erectis, calycibus glaberrimis, stylis hirsutissimis.

HAB. In Novæ Hollandiæ orâ orientali; prope Cape Townsend: in umbrosis, ad radices montium. (ubi v. v.)

† E. CALOTHYRSUS. (GREVILLIA strictè sic dicta.)

Racemus *thyrsiformis*. Folia *pinnatifida* (rardè passim indivisa).

*26. *G. pungens*, foliis pinnatifidis suprâ glabris subtùs argenteis: laciniis subulato-linearibus mucronatis pungentibus, racemis refractis, calycibus pistillisque glaberrimis.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria: prope littora. (ubi v. v.)

*27. *G. Dryandri*, foliis pinnatis subtùs sericeis: foliolis elongato-linearibus, racemis pedunculatis porrectis longissimis, calycibus insertione subobliquis pistillisque glaberrimis, caule patulo.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria, Arnhem's Land: prope littora. (ubi v. v.)

*28. *G. aspleniifolia*, foliis elongatis linearibus pinnatifido-incisis integerrimisque subtùs tomentosis, racemis folio ter brevioribus, calycibus pubescentibus, stylis glabris.

HAB.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : rariùs. (v. s. in Herb. Banks.)

- *29. *G. Banksii*, foliis pinnatifidis subtùs sericeis : laciniis elongato-lanceolatis, racemis erectis æqualibus, calycibus tomentosis, stylis glabris, ovariis sessilibus.

HAB. In Novæ Hollandiæ orâ orientali ; Keppel Bay, Pine Port, &c. : in collibus saxosis. (ubi v. v.)

- *30. *G. Chrysodendrum*, foliis pinnatifidis bipinnatifidisque : laciniis angusto-linearibus elongatis, racemis cylindraceis : floribus semiverticillatis, calycibus tomentosis basi persistenti ! ovariis subsessilibus, stylis glabris.

HAB. In Novæ Hollandiæ orâ septentrionali ; Carpentaria : prope littora. (ubi v. v.)

†† CYCLOPTERA.

Folliculi *lignei, subrotundi, basi styli mucronati. Semina undique alata.*

- *31. *G. heliosperma*, foliis pinnatis subbipinnatisque glabris : pinnis oblongo-linearibus v. oblongis : inferioribus petiolatis, racemis divisis erectis, calycibus pistillisque glaberrimis.

HAB. In Novæ Hollandiæ orâ septentrionali ; Carpentaria : prope littora. (ubi v. v.)

- *32. *G. refracta*, foliis pinnatis passim indivisis : foliolis elongato-linearibus subtùs argenteis, racemis refractis divisis, calycibus sericeis, pistillis glaberrimis.

HAB. In Novæ Hollandiæ orâ septentrionali ; Carpentaria : prope littora. (ubi v. v.)

*33. *G. ce-*

- *33. *G. ceratophylla*, foliis 2-3-fidis indivisisque subtus nervosis sericeis: laciniis elongato-linearibus, folliculis glaberrimis ovalibus.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria: prope littora. (ubi v. v. sine flor.)

- *34. *G. mimosoides*, foliis integerrimis ensiformibus planis nervosis ramisque glabris, folliculis obovatis viscidis.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria: prope littora. (ubi v. v. sine flor.)

- *35. *G. polystachya*, foliis lineari-ensiformibus integerrimis laxis subtus nervosis sericeis, racemis terminalibus alternis, pistillis semunciâ longioribus, stigmate obliquo concavo papillâ centrali.

HAB. In Novæ Hollandiæ orâ orientali, intra tropicum. (ubi v. v.)

- *36. *G. striata*, foliis lineari-ensiformibus integerrimis strictis subtus multinervibus sericeis, racemis terminalibus alternis, pistillis semunciâ brevioribus, stigmate verticali depresso-conico.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria: prope littora. (ubi v. v. sine fructu.)

- *37. *G. lorea*, foliis teretibus! pendulis longissimis, stigmate truncato-pyramidato.

HAB. In Novæ Hollandiæ orâ orientali, prope littora; Shoal-water Bay. (ubi v. v. sine fructu.)

- *38. *G. gibbosa*, foliis elongato-lanceolatis integerrimis pubescentulis

tulis uninerviis venosis, racemis elongatis, stigmate conico, folliculis gibboso-incrassatis.

HAB. In Novæ Hollandiæ orâ orientali, intra tropicum; prope Endeavour River. *J. Banks, bart.* (v. s.)

26. HAKEA.

Schrad. Sert. Hanov. Cavan. Ic. 6. Labill. Nov. Holl. 1. p. 30.

Pers. Syn. 117. Conchium. Smith. Linn. Trans. iv. p. 215.

Vent. Malmais. 110. Gært. Carp. 3. p. 216.

CHAR. GEN. *Calyx* tetraphyllus, irregularis, foliolis secundis. *Stamina* apicibus concavis calycis immersa. *Glandula* hypogyna unica, dimidiata, (rarò biloba). *Ovarium* pedicellatum, dispermum. *Stigma* subobliquum, e basi dilatata conico-mucronatum. *Folliculus* unilocularis, ligneus, loculo excentrico, pseudobivalvis. *Semina* alâ apicis nucleo longiore.

HABITUS. Frutices rigidi, quandoque Arbores mediocres; pube dum adsit medio affixâ. Folia sparsa, in variis varia, nunc in eodem frutice diversiformia. Fasciculi v. Racemuli, sæpiùs axillares, in plerisque involucrati, squamis imbricatis, scariosis, caducis, rudimenta ramulorum quandoque simul includentibus, ideoque potiùs pro gemmâ habendis, sed genus, unicâ exceptâ specie, a confinibus, optimè distinguentibus, aliis notis in quibusdam vacillantibus. Pedicelli colorati, in racemosis geminati, paribus unibracteatis. Flores parvi, albi v. ochroleuci. Pistillum glaberrimum, stylo subdeciduo. Capsula parietibus incrassatis. Semina nigra, rarò cinerea.

† Folia omnia filiformia.

A. Capsulæ juxta apicem ecalcaratæ.

1. *H. pugioniformis*, foliis filiformibus indivisis glabris, calycibus sericeis hirsutisve, capsulis lanccolatis acuminatis rectis utrinque infra medium transversim cristatis.

α. Calyces

α. Calyces sericei.

Banksia teretifolia. *Salisb. Prod.* 51.

Hakea glabra. *Schrad. Sert. Hanov.* 27. t. 17.

Hakea pugioniformis. *Cavan. Anal. de Hist. Natur.* 1. p. 213.*

Id. 6. p. 24.* *tab.* 533.

Conchium pugioniforme. *Smith. Linn. Trans.* 9. p. 122.*

Conchium longifolium. *Smith. Linn. Trans.* 9. p. 121.*

Lambertia teretifolia. *Gært. Carp.* 3. p. 213. t. 217.

β. Calyces hirsuti. Ramuli ultimi tomentosi.

HAB. In *Novæ Hollandiæ* orâ orientali; prope Port Jackson: in ericetis aridis, collibusque saxosis. β fortè distincta species. In *Insulâ Diemen*. (ubi v. v.)

*2. *H. rugosa*, foliis filiformibus indivisis glabris fructu parùm longioribus, capsulis obovatis curvatis refractis utrinque cristatis rugosis; acumine subulato lævi adscendenti, caule diffuso.

HAB. In *Novæ Hollandiæ* orâ australi; *Flinders' Land*: in campis sterilibus prope littora. (ubi v. v. absque flor.)

*3. *H. epiglottis*, foliis filiformibus indivisis glabris fructu duplò longioribus, capsulis curvatis refractis utrinque rugosis ecristatis: mucrone adscendenti subulato carinato, seminum alâ obovatâ, caule erecto.

Hakea epiglottis. *Labill. Nov. Holl.* 1. p. 30. *tab.* 40.

Conchium teretifolium. *Gært. Carp.* 3. p. 217. t. 219.

HAB. In *Insulâ Diemen*; ad fluviorum rivulorumque ripas. (ubi v. v.)

*4. *H. nodosa*, foliis filiformibus indivisis compressiusculis, cap-

sulis gibbosis obtusis nodosis seminumque alâ obovatis, calycibus glabris, pedunculis pubescentibus.

HAB. In Novæ Hollandiæ orâ australi, prope Port Phillip; ad latera montium. (ubi v. v.)

OBS. Sequenti nimis affinis, an species distincta?

*5. *H. flexilis*, foliis filiformibus indivisis parùm compressis, capsulis ellipticis acutiusculis modicè convexis lævibus.

HAB. In Novæ Hollandiæ orâ australi, prope Port Phillip; ad latera montium. (ubi v. v.)

*6. *H. leucoptera*, foliis teretibus indivisis fructu duplò longioribus, ramis erectis virgatis subflexuosis, capsulis ovatis infrâ gibbosis suprâ compressis, seminibus albo-cinereis!

HAB. In Novæ Hollandiæ orâ australi; Flinders' Land: ad margines sylvarum prope radices montium. (ubi v. v. sine flor.)

*7. *H. obliqua*, foliis teretibus indivisis, ramis tomentosis, glandulâ hypogynâ adnatâ apice obliquo pedunculi, calycibus sericeis, capsulis gibbosis subnodosis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis aridis. (ubi v. v.)

*8. *H. sulcata*, foliis filiformibus indivisis undique sulcatis divaricatis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis aridis. (ubi v. v. seu flor. caps. immat.)

† B. *Capsulæ juxta apicem bicalcaratæ.*

*9. *H. lissosperma*, foliis filiformibus indivisis undique exsulcis glabris

glabris fructu duplò longioribus, capsulis gibbosis intùs lævibus: calcaribus brevissimis, seminis alâ obovatâ: nucleo lævi basi immarginato.

HAB. In Insulæ Diemen montibus australioribus; inter fluvia Derwent et Huon. (ubi v. v. sine flor.)

10. *H. gibbosa*, foliis filiformibus indivisis subtùs basi obsolete-
tissimè sulcatis ramisque subpubescentibus, ramulis pedun-
culisque hirsutis, calycibus glabriusculis, capsulis gibbosis
intùs lacunosis seminis alâ semiellipticâ, nucleo lacunoso
basi marginato.

Banksia gibbosa. *Smith in White's Voy.* 224. t. 22. f. 2. *Willd.*
Sp. Pl. 1. p. 536.

Banksia pinifolia. *Salisb. Prod.* 51.

Hakea pubescens. *Schrad. Sert. Hanov.* 27.

Hakea gibbosa. *Cavan. Anal. de Hist. Nat.* 1. p. 214.* *Ic.* 6.
p. 24.* t. 534.

Conchium gibbosum. *Smith in Linn. Trans.* 9. p. 119.*

Conchium sphæroideum. *Smith in Linn. Trans.* 9. p. 120*?

Conchium cornutum. *Gært. Carp.* 3. p. 216. t. 219.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson:
in ericetis. (ubi v. v.)

OBS. Calyces non penitùs glabri, sed pilis paucis longiusculis
decumbentibus, sæpiùs deciduis, conspersi.

11. *H. acicularis*, foliis filiformibus indivisis glabris subtùs infra
medium obsolete sulcatis longitudine fructûs, ramulis ultimis
subsericeis, pedunculis hirsutis calyces glaberrimos sub-
æquantibus, capsulis gibbosis subrugosis intùs lacunosis.

Banksia tenuifolia. *Salisb. Prod.* 51.

Hakea sericea. *Schrad. Sert. Hanov.* 27.

Conchium

Conchium aciculare. Vent. Malm. t. 111. Smith in Linn. Trans. 9. p. 121.

β. *Conchium compressum*. Smith in Linn. Trans. 9. p. 121.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis saxosis. (ubi v. v.)

- *12. *H. vittata*, foliis filiformibus indivisis exsulcis glabris fructu duplò longioribus, capsulis ovatis convexiusculis æquilateralibus basi citiùs dehiscentibus intùs lacunosis, seminis alâ obovatâ, ramulis tomentosîs.

HAB. In Novæ Hollandiæ orâ australi; Flinders' Land: in campis sterilibus, prope littora. (ubi v. v. sine flor.)

- *13. *H. cycloptera*, foliis filiformibus indivisis fructu duplò longioribus ramulisque glaberrimis, capsulis gibbosis intùs lacunosis, seminibus utrinque alatis; alâ inferiore nucleum subæquante!

HAB. In Novæ Hollandiæ orâ australi; Flinders' Land: in campis prope littora. (ubi v. v. sine flor.)

- *14. *H. suaveolens*, foliis filiformibus pinnatifidis passimque indivisis suprâ sulcatis, floribus racemosis glabris: rachi tomentosâ, capsulis gibbosis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in saxosis prope littora. (ubi v. v.)

†† *Folia pleraque filiformia, aliqua plana.*

- *15. *H. microcarpa*, foliis integerrimis glabris: rameis teretibus; infimis planis, calycibus pedunculisque glaberrimis, capsulis bicalcaratis umbellatis folio multoties brevioribus.

HAB. In Insulâ Dicmen; ad ripas saxosas fluviorum. (ubi v. v.)

16. *H. tri-*

16. *H. trifurcata*, foliis filiformibus 2-3-fidis indivisisve subtùs sulcatis: passim planis ovalibus integerrimis, calycibus hirsutis, capsulis compressis ecalcaratis.

Conchium trifurcatum. *Smith in Linn. Trans.* 9. p. 122.*

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis sterilibus. (ubi v. v.)

17. *H. varia*, foliis superioribus filiformibus divisis simplicibusque: inferioribus planis pinnatifidis laciniis linearibus subulatisve, capsulis bicalcaratis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis sterilibus. (ubi v. v. sine flor.)

††† *Folia omnia plana.*

A. *Folia aliqua v. omnia dentata v. incisa.*

- *18. *H. attenuata*, foliis cuneatis apice dentatis pinnatifidisve: passim lanceolatis integerrimis basi attenuatis, capsulis bicalcaratis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v. sine flor.)

- *19. *H. linearis*, foliis lanceolato-linearibus spinuloso-paucidentatis integerrimisque aveniis impunctatis, ramulis pedunculoque communi glabris, fasciculis terminalibus axillariisque, capsulis bicalcaratis compressiusculis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land; in campis sterilibus. (ubi v. v.)

- *20. *H. florida*, foliis angusto-lanceolatis spinuloso-dentatis, minutissimè punctatis marginibus scabriusculis, ramulis pedunculoque communi brevissimo pubescentibus, capsulis bicalcaratis convexiusculis.

HAB.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad latera collium. (ubi v. v.)

- *21. *H. ilicifolia*, foliis circumscriptione ovalibus opacis sinuato-dentatis spinulosis subpetiolatis, ramis tomentosis, capsulis bicalcaratis ovatis gibbosis apice compressis intùs scrobiculatis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus sterilibus. (ubi v. v.)

- *22. *H. nitida*, foliis lanceolatis oblongisve basi attenuatis spinuloso-paucidentatis integrisque nitidis subvenosis ramulisque glaberrimis, capsulis bicalcaratis gibbosiuseculis intùs læviusculis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v. absque flor.)

- *23. *H. amplexicaulis*, foliis sinuato-dentatis nitidis subvenosis: basi dilatatâ cordatâ amplexicauli, caule prostrato, ramis glabris, capsulis ecalcaratis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus sterilibus. (ubi v. v. sine flor.)

- *24. *H. prostrata*, foliis angulato-dentatis apice dilatatis cuneatis: basi cordatâ amplexicauli, caule prostrato, ramis pubescentibus, capsulis ecalcaratis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus sterilibus. (ubi v. v.)

25. *H. ceratophylla*, foliis pinnatifidis bipinnatifidisve linearibus planis, calycibus ferrugineo-tomentosis, capsulis ecalcaratis.

Conchium

Conchium ceratophyllum. *Smith. Linn. Trans. 9. p. 124.**

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis collibusque. (ubi v. v.)

*26. *H. undulata*, foliis obovatis trinervibus reticulato-venosis undulatis spinoso-dentatis, capsulis ecalcaratis tumidis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v. sine flor.)

††† B. *Folia omnia integerrima.*

27. *H. oleifolia*, foliis lanceolatis integerrimis uninervibus obsolete venosis mucronulo spinoso: superioribus pubescentibus, ramulis tomentosis, capsulis terminalibus bicalcaratis gibbosis.

Conchium oleifolium. *Smith. Linn. Trans. 9. p. 124.**

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis et collibus (ubi v. v.)

28. *H. saligna*, foliis elongato-lanceolatis integerrimis uninervibus acutis apiculo sphacelato; omnibus ramulisque glaberrimis, capsulis axillaribus gibbosis: apice compresso utrinque carinato.

Embothrium salignum. *And. Repos. t. 215.*

Conchium salignum. *Smith. Linn. Trans. 9. p. 124.**

Conchium salicifolium. *Gært. Carp. 3. p. 217. t. 219.*

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis elevatioribus. (ubi v. v. sine flor.)

*29. *H. marginata*, foliis lanceolatis integerrimis marginatis uninervibus (unciâ brevioribus) mucrone spinoso: summis pubescentibus, capsulis ecalcaratis acuminatis nitidis subsessilibus.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericctis elevationibus. (ubi v. v. sine flor.)

30. *H. ruscifolia*, foliis ellipticis obovatisve petiolatis integerrimis spinoso-cuspidatis suprâ punctato-scabris subtùs tomentosis, ramulis hirsutis, capsulis ecalcaratis punctatis scabriusculis.
 β. *Hakea ruscifolia*. *Labill. Nov. Holl.* 1. p. 30.* t. 39.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad latera collium. (ubi v. v. sine flor.)

- *31. *H. cinerea*, foliis lineari-lanceolatis elongatis integerrimis trinerviis obsoletè venosis scabriusculis apiculo sphacelato, ramulis squamisque involucris tomentosis, capsulis lanceolatis acuminatis subcompressis ecalcaratis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in arenosis prope littora. (ubi v. v. sine flor.)

32. *H. dactyloides*, foliis integerrimis triplinerviis venosis obovato-oblongis v. lineari-lanceolatis aversis, ramulis angulatis, pedicellis pilosis, calycibus glabris, capsulis ecalcaratis: cortice verrucoso.

α. Folia obovato-oblonga, passim lanceolata, venis anastomozantibus.

Banksia dactyloides. *Gært. Sem.* 1. p. 221. t. 47. f. 2. *Lam. Illust. Gen.* 1. p. 242. n. 1279. t. 54. f. 3. a *Gært.* mutuat.

Banksia olcæfolia. *Salisb. Prod.* 54.

Hakea dactyloides. *Cavan. Anal. de Hist. Nat.* 1. p. 215. Ic. 6. p. 25. t. 535.

Conchium dactyloides. *Vent. Malm.* t. 110. *Smith. Linn. Trans.* 9. p. 123.

Conchium

Conchium nervosum. *Gært. Carp. 3. p. 217. t. 219.*

β. Folia lineari-lanceolata, venis obsoletis.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson:

α. in saxosis prope littora. β. ad ripas fluviorum in regione montanâ. (ubi v. v.)

33. *H. elliptica*, foliis integerrimis quinquenervibus reticulato-venosis ellipticis ovalibusve muticis, pedicellis calycibusque glabris, capsulis ecalcaratis acutis gibbosis: cortice nitido.

Conchium ellipticum. *Smith. Linn. Trans. 9. p. 123.*

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

34. *H. clavata*, foliis integerrimis lingulatis cartilagineo-carnosis mucronatis enervibus, floribus racemosis glabris, capsulis bicalcaratis.

Hakea clavata. *Labill. Nov. Holl. 1. p. 31.* t. 41.*

HAB. In Novæ Hollandiæ orâ australi; Lewins Land; in collibus saxosis prope littora. (ubi v. v.)

*35. *H. arborescens*, foliis integerrimis lingulatis linearibusve obsoletè nervosis muticis, involucris nullis! umbellis pedunculatis, pedicellis calycibusque tomentosis, capsulis ecalcaratis.

HAB. In Novæ Hollandiæ orâ septentrionali; Carpentaria: in apricis prope littora. (ubi v. v.)

Obs. Species unica tropica et gemmis floralibus nudis.

27. LAMBERTIA.

Smith. Linn. Trans. 4. p. 214. Cavan. Ic. 6. p. 31.

CHAR. GEN. *Calyx* tubulosus, quadrifidus, laciniis spiraliter revolutis.

volutis. *Stamina* laciniis inserta. *Squamulæ* hypogynæ 4, distinctæ v. in vaginulam connatæ. *Ovarium* dispermuum. *Stigma* subulatum. *Folliculus* unilocularis, coriaceo-ligneus. *Semina* marginata. *Involucrum* 1—7-florum, imbricatum, deciduum. *Receptaculum* planum, epaleatum.

HABITUS. Frutices *pulcherrimi*, ramis *verticillatis*. Folia *terna*, *sapiùs integerrima*. Involucra *terminalia*, *solitaria*, *colorata*, in *plerisque septemflora*, *rardò uniflora*. Folliculi *subcuneati*, *apice hinc cuspidati*, *inde bicornes* v. *mutici*, *quandoque echinati*.

- *1. *L. uniflora*, involucris unifloris, foliis obovatis mucronatis glabris reticulatis, folliculis hinc cuspidatis inde ecornibus.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: prope littora saxosa sinuum. (ubi v. v.)

- *2. *L. inermis*, involucris septemfloris: foliolis interioribus calycis dimidio brevioribus, stylis glabris, folliculis hinc cuspidatis inde ecornibus, foliis oblanceolatis obovatisque muticis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad latera saxosa collium. (ubi v. v.)

3. *L. formosa*, involucris septemfloris: foliolis interioribus calycem æquantibus, stylis pilosis, folliculis hinc cuspidatis inde bicornibus, foliis lineari-lanceolatis cuspidato-mucronatis margine revolutis.

Lambertia formosa. *Smith. Linn. Trans. tab.* 20. *And. Repos.* 69.

Cavan. Anal. de Hist. Nat. 1. p. 233.* *Ic.* 6. p. 31.* *t.* 547.

Protea nectarina. *Wendel. Sert. Hanov. fasc.* 4. p. 5. *t.* 21.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis saxosis. (v. v.)

4. *L?* *echi-*

*4. L? *echinata*, foliis linearibus glabris reticulatis apice dilatato-lobato ! mucronato, folliculis bicornibus undique echinatis.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : ad latera saxosa collium. (ubi v. v. absque flor.)

28. XYLOMELOM.

Smith. Linn. Trans. 4. p. 214.

CHAR. GEN. *Calyx* tetraphyllus, regularis, foliolis apice revolutis. *Stamina* inserta supra medium foliolorum, iisque recurvatis exserta. *Glandulæ* quatuor hypogynæ. *Ovarium* dispersum. *Stylus* deciduus. *Stigma* verticale, clavatum, obtusum. *Folliculus* incrassato-ligneus, unilocularis, loculo excentrico. *Semina* apice alata.

HABITUS. Arbor. Folia *opposita*, *adulta integerrima*, *plantæ juvenilis dentata*. Spicæ *axillares*, *oppositæ*, *amentuceæ*, *florum paribus unibracteatis*, *infimis solùm perfectis*, *reliquis ovario destitutis stigmatæque minore abortientibus*. *Folliculus unicus tantùm maturescens*, *obpyriformis*, *tomentosus*, *crassissimus*, *intùs suturâ dehiscens*, *inde siccatione partibilis*.

XYLOMELUM *pyriforme*.

Banksia pyriformis. Gært. Sem. 1. p. 220. t. 47. f. 1. fructus.

Lam. Illust. Gen. 1. p. 242. n. 1278. t. 54. f. 4. a Gært. mutuat. White. Voy. 224.

Hakea piriformis. Cavan. Anal. de Hist. Nat. 1. p. 217.* Ic. 6. p. 25.* t. 536.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in campis et collibus saxosis. (ubi v. v.)

29. ORITES.

CHAR. GEN. *Calyx* tetraphyllus, regularis, foliolis apice recurvis. *Stamina* inserta supra medium foliolorum, iisque recurvatis exserta.

exserta. *Glandulæ* quatuor hypogynæ. *Ovarium* sessile, dispermum. *Stylus* strictus. *Stigma* obtusum, verticale. *Folliculus* coriaceus, unilocularis, loculo subcentrali. *Semina* apice alata.

HABITUS. Frutices. Folia *alterna*, *integerrima* v. *dentata*. Spicæ *axillares* v. *terminales*, *breves*, *florum paribus unibracteatis omnibus hermaphroditis*.

ETYM. *Οξείτης* monticola. Hi Frutices enim in summis montibus crescunt.

- *1. *O. diversifolia*, foliis planis lanceolatis dentatis integerrimisve subtùs tomentosiusculis, folliculis suturâ truncatâ leviterve excisâ.

HAB. In Insulæ Diemen summis montibus. (ubi v. v.)

- *2. *O. revoluta*, foliis margine revolutis linearibus integerrimis subtùs incano-tomentosis, folliculis suturâ rotundatâ.

HAB. In Insulæ Diemen summis montibus. (ubi v. v. absque flor.)

30. RHOPALA.

Schreb. *Gen. Pl.* 144. Roupala. Aubl. *Guian.* 1. p. 83. t. 32. *Gart. Carp.* 3. p. 212. t. 217.

CHAR. GEN. *Calyx* tetraphyllus, regularis, foliolis apice recurvis. *Stamina* supra medium foliorum inserta, iisque recurvatis exserta. *Squamulæ* hypogynæ quatuor, distinctæ v. connatæ. *Ovarium* dispermum. *Stylus* persistens. *Stigma* verticale, clavatum. *Folliculus* unilocularis, ligneo-coriaceus. *Semina* utrinque alata, marginata, nucleo centrali.

HABITUS. Arbores. Folia *alterna*, *rarò verticillata*, *simpliciu integerrima* v. *dentata*, *rariùs pinnata* v. *ternata*, in eodem ramo.

Spicæ

Spicæ axillares, quandoque terminales, racemosæ, floribus geminis paribus unibracteatis.

1. *R. montana*, foliis alternis integerrimis ovatis complicatis breviter acuminatis reticulato-venosis racemo axillari brevioribus, pedunculis cum calycibus ovariisque ferrugineo-tomentosis.

Roupala montana. Aublet. *Guian.* 1. p. 83. t. 32. *Lam. Illust. Gen.* 1. p. 243. t. 55. Poiret. *Encyc. Botan.* 6. p. 316.*

Rupala montana. Vahl. *Symb.* 3. p. 20. Willd. *Sp. Pl.* 1. p. 536. *Gart. Carp.* 3. p. 212. t. 217.

HAB. In Americæ æquinoctialis Guianâ Gallicâ. Aublet. (v. s. in Herb. Aubl., nunc in Mus. Banks.)

- *2. *R. media*, foliis alternis integerrimis ovatis planis acuminatis petiolum decurrentibus immersè venulosis racemo axillari brevioribus, pedicellis calycibusque pubescentibus, ovariis tomentosis.

HAB. In Americæ æquinoctialis Guianâ Gallicâ. *Jul. V. Rohr.* (v. s. in Herb. Banks.)

3. *R. nitida*, foliis alternis integerrimis ellipticis breviter acuminatis planis racemum axillarem subæquantibus, pedicellis cum calycibus ovariisque glabris.

Ropala nitida. Rudge, *Guian.* 1. p. 26. t. 39.

HAB. In Americæ æquinoctialis Guianâ Gallicâ. *Jos. Martin.* (v. s. in Herb. Banks. et Lambert.)

- *4. *R. moluccana*, foliis alternis integerrimis ellipticis planis venulosis subreticulatis spicâ longioribus, pedicellis calycibusque glabris.

HAB. In Insulis Moluccanis. *D. Christoph. Smith.* (v. s. in Herb. Banks.)

5. *R. co-*

5. *R. cochinchinensis*, foliis alternis ovato-ellipticis breviter acuminatis planis extra medium subserratis racemum axillarem subæquantibus, pedicellis cum calycibus ovariisque glabris. *Helicia cochinchinensis*. *Lour. Cochin.* 83.* fide speciminis ab auctore, in Herb. Banks.

HAB. In sylvis Cochinchinæ. *Loureiro. l. c.* (v. s. absque fructu.)

DESC. Rami glaberrimi, teretes. *Folia* petiolata, glaberrima, uninervia, 2-2½ uncias longa; quandoque integerrima. *Racemi* solitarii. *Calyx* ante expansionem clavatus, clavâ ovali tubi dimidio brevior et duplò crassior. *Antheræ* foliolis calycis spiraliter revolutis exsertæ. *Ovarium* brevissimè pedicellatum. *Stylus* filiformis, strictus. *Stigma* clavatum, striatum, oblongum, æquilaterale. *Squamulæ* quatuor hypogynæ, breves, ad medium connatæ, persistentes (à Loureiro post lapsum calycis visæ et uti calyculus quadrifidus descriptæ).

- *6. *R. serrata*, foliis alternis latè ellipticis parùm acuminatis serratis racemo axillari longioribus: basi subattenuatâ integerrimâ; paginis discoloribus, pedicellis cum calycibus ovariisque tomentosis.

HAB. In Insulis Moluccanis. *D. Christoph. Smith.* (v. s. in Herb. Banks. et Roxb.)

- *7. *R. dentata*, foliis alternis ovato-lanceolatis complicatis dentatis utrinque attenuatis racemo axillari parùm brevioribus: acumine lineari, calycibus ovariisque tomentosis.

HAB. In Americæ æquinoctialis Guianâ Gallicâ. *D. Alex. Anderson.* (v. s. in Herb. Banks.)

8. *R. peruviana*, foliis alternis ovatis serratis lanuginosis subtùs ferrugineis racemo axillari brevioribus.

Embothrium

Embothrium monospermum. *Flor. Peruv. et Chil.* 1. p. 63.*
t. 98.

HAB. In Peruviæ montibus frigidis ; prope Panao, vicum ad
Portachuelo declivia. *Flor. Peruv. l. c.*

9. *R. diversifolia*, foliis alternis simplicibus pinnatisque venosis-
simis subtùs pubescentibus racemo axillari brevioribus, folli-
culis acinaciformibus tomentosis.

Embothrium pinnatum. *Fl. Peruv. et Chil.* 1. p. 63*. t. 99.

HAB. In Peruviâ ; in Muna rudcratis et versuris. *Flor.*
-Peruv. l. c.

10. *R. sessilifolia*, foliis quaternis subsessilibus cuneato-oblongis
subacuminatis integerrimis, racemis terminalibus verticillatis
umbellatisve.

Roupala sessilifolia. *Rich. in Act. Soc. Hist. Nat.* 1. p. 106.
Poiret. Encyc. Botan. 6. p. 316.* *Willd. Sp. Pl.* 1. p. 537.

Ropala hameliæfolia. *Rudge Guian.* 1. p. 22.* t. 31.

HAB. In Americæ æquinoctialis Guianâ Gallicâ. (v. s. in Herb.
Banks. et Lamb.)

31. KNIGHTIA.

CHAR. GEN. *Calyx* tetraphyllus, regularis, foliolis revolutis.
Stamina calyci extra medium inserta. *Glandulæ* hypogynæ
quatuor. *Ovarium* tetraspermum, sessile. *Stigma* verticale
subclavatum. *Folliculus* coriaceus, styligerus, unilocularis.
Semina apice alata.

HABITUS. Arbor *excelsa*. Folia *sparsa, serrata*. Racemi *axil-*
lares, floribus geminatis, paribus unibracteatis. Folliculi *ob-*
longi, tomentosi.

Genus proximum *Rhopalæ*, distinctum, Seminibus quaternis,
apice solùm alatis.

This genus, which was discovered by Sir Joseph Banks, is with his approbation, named in honour of his friend Thomas Andrew Knight, esq. the author of many valuable essays on Vegetable Physiology, published in the Philosophical Transactions.

For the figure here given I am also indebted to the liberality of the illustrious President of the Royal Society, who has enabled me to complete the account of this remarkable plant, by permitting me to copy Dr. Solander's description, which I was the more desirous to give, as it exhibits a specimen of the accuracy with which subjects of natural history were investigated in that celebrated voyage; of whose important results it is to be lamented so little is known to foreign naturalists, though in this country they have ever been open to the public, and in the most advantageous manner.

KNIGHTIA *excelsa*. Tab. II.

HAB. In Novâ Zelandiâ; prope Tolaga et Opuragi. *Josephus Banks* baronetus. (v. s. folliculis vacuis sed impressionibus seminum insignitis.)

DESC. *Arbor* sylvestris, magna, sæpè 80 pedalis. *Caudex* stric-
tissimus. *Rami* erecti, teretes, glabri. *Ramuli* ultimi parùm
compressi, villosiusculi. *Coma* pyramidalis. *Folia* numerosa,
densè sparsa, erecta, petiolata, lanceolato-oblonga, (v. ob-
longa,) acutiuscula, profundè serrata, serraturis remotis ob-
tusis, plana, coriacea, rigida: supernè glabra, nitida, lævia,
subtùs venosa venulisque numerosissimis subreticulata, villis
copiosissimis brevissimis densissimis cinerascentia: 4-5 un-
cias longa. *Petiol*i foliis sexies breviores. *Racemi* sessiles, axil-
lares, simplices, multiflori, ovato-oblongi, foliis duplò brev-
iores, sæpè in ramis nudis collocati, ubi ante decessum foliorum
axillares fuerunt, unde primo intuitu videntur quasi lateri-
bus ramorum erumpentes. *Rachis* ruberrima. *Pedicelli* holo-
sericei,



Singhilia caribea

sericei, ruberrimi, crassiusculi, patentissimi, semunciales, bipartiti, unde biflori. *Calyx* tetraphyllus, foliola ante expansionem arcuè in tubum connata, linearia, acutiuscula, sesquiuncialia, coriacea, extùs villosa holosericea, ruberrima, usque ad basin revoluta, æqualia, in medio paulò angustiora. *Glandulæ* quatuor, receptaculo inter basin foliolorum insertæ, e latâ basi acutæ, virescentes, apice rubicundæ, semilineam longæ. *Filamenta* quatuor, unguibus petalorum adnata, suprâ medium per spatium lineare libera, filiformia, plana, erecta, rubicunda. *Antheræ* lineares, longitudine foliolorum, supernè parùm incurvæ, flavæ, ipso apice casso lanccolato. *Ovarium* conicum, subangulatum, villosiusculum, rubrum. *Stylus* filiformis, crassiusculus, strictus, persistens, longitudine filamentorum, rubicundus. *Stigma* cylindraceo-angulatum, incrassatum, apice attenuatum, longitudine antherarum, virescens. *Folliculus* oblongo-lanceolatus, stylo persistenti coronatus, coriaceus, crassus, durus, unilocularis, sesquiuncialis v. paulò longior, extùs sericeus. *Hactenus* SOLANDER.

Obs. Pollen triangulare, angulis per lentem pellucentioribus, flavum. *Ovarium* tetraspermum, ovulis apice alatis.

32. EMBOTHRIMUM.

Embothrii species. *Forst. Gen.* 15. t. 8. litt. g. et seq.

CHAR. GEN. *Calyx* irregularis, hinc longitudinaliter fissus, inde quadrifidus. *Stamina* apicibus concavis calycis immersa. *Glandula* hypogyna unica, semiaunularis. *Ovarium* pedicellatum, polyspermum. *Stylus* persistens. *Stigma* verticale, clavatum. *Folliculus* oblongus. *Semina* apice alata.

HABITUS. Frutices. v. *Arbusculæ glabræ*. Ramuli *squamis persistentibus gemmarum quandoque obsiti*. Folia *sparsa, integerrima*. Racemi *terminales, corymbosi, paribus pedicellorum,*

unibracteatis : Involucro communi nullo. Flores coccinei, glaberrimi.

1. *E. coccineum*, foliis ovali-oblongis obtusis mucronulatis : paginis discoloribus, ramulis squamatis.

Embothrium coccineum. *Forst. Gen.* p. 16. t. 8. litt. g.—m. *Linn. Suppl.* 128. *Forst. Com. Soc. Reg. Goett.* 9. p. 24. *Lam. Encyc. Botan.* 2. p. 351*. *Illust. Gen.* 1. p. 244. n. 1284. t. 55. f. 2. *Willd. Sp. Pl.* 1. p. 537.

HAB. In Americâ Australi ad littora freti Magellanici, et in Terra del Fuego. (v. s. in Herb. Banks.)

OBS. Pollen ellipticum, levissimè arcuatum, extremitate utrâque pellucetiore; fovillâ majusculâ globosâ.

2. *E. lanceolatum*, foliis lanceolato-linearibus, ramis esquamatis.†

Embothrium lanceolatum. *Flor. Peruv. et Chil.* 1. p. 62. t. 96.

HAB. In Chili collibus et montibus altis, inter Conceptionis urbem et Arauci arcem. *Flor. Peruv. l. c.*

33. OREOCALLIS.

Embothrii species. Flor. Peruv. et Chil.

CHAR. GEN. *Calyx* irregularis, hinc longitudinaliter fissus, inde quadridentatus. *Stamina* apicibus concavis calycis immersa. *Glandula* nulla hypogyna. *Ovarium* pedicellatum, polyspermum. *Stigma* obliquum, orbiculato-dilatatum, concaviusculum. *Folliculus* cylindraceus. *Semina* apice alata. *Involucrum* (racemi) nullum.

HABITUS. Frutex speciosus. Folia sparsa, integra, paginis discoloribus. Racemus thyrsoides, terminalis, paribus pedicellorum *unibracteatis*. Flores coccinei, glaberrimi.

ETYM. *Ogos* mons, et *καλος* formosus.

OREOCALLIS

OREOCALLIS grandiflora.†

Embothrium grandiflorum. *Lam. Encyc. Botan.* 2. p. 354.*

Illustr. Gen. 1. p. 244. n. 1283. *Willd. Sp. Pl.* 1. p. 538.

Embothrium emarginatum. *Flor. Peruv. et Chil.* p. 62. t. 95.

HAB. In Peruvix montibus; in collibus frigidis Provinciæ Tarmæ. *Flor. Peruv. l. c.*

34. TELOPEA.

Embothrii species. Smith. Salisb.

CHAR. GEN. *Calyx* irregularis, hinc longitudinaliter fissus, inde quadrifidus. *Stamina* apicibus concavis calycis immersa. *Glandula* hypogyna unica, subannularis. *Ovarium* polyspermum, pedicellatum. *Stylus* persistens. *Stigma* obliquum, clavatum, convexum. *Folliculus* unilocularis, cylindraceus. *Semina* apice alata, alâ hinc immarginatâ inde vasculosâ nervo obliquè recurrenti. *Involucrum* (racemi v. corymbi) imbricatum, deciduum.

HABITUS. Frutices *ramis determinatis*. *Folia sparsa, dentata v. integra*. *Racemi terminales, corymbosi, paribus pedicellorum unibracteatis*. *Flores coccinei*.

ETYM. *τηλαπος* qui e longinquo cernitur, quod de his fruticibus, floribus coccineis speciosis valet.

In this genus, as well as in *Lomatia*, and perhaps in all those with an indefinite number of seeds, an extremely thin black-brown crust is interposed between the ripe seeds, exactly corresponding with them in size and form, and which is probably the remains of a fluid matter that had separated them in the unripe state.

The most important characters distinguishing this genus from *Lomatia*, seem to be the single semiannular or nearly circular gland, the cohering calyx, and the vascular wing of the

the seed ; for the Involucrum, which at first seems to afford so excellent a distinction, considerably loses its importance in *Telopea truncata*, in which it almost always includes the rudiments of branches, as in *Hakea*. In natural affinity *Telopea* approaches much more nearly to *Oreocallis*, which differs principally in having no gland at the base of the foot-stalk of its ovarium, and in the want of an Involucrum : the wing of the seed seems (from the figure in the *Flora Peruviana*) to be in like manner vascular. *Embothrium* itself, which is also very near akin to *Telopea*, is distinguishable by its vertical stigma, oval pollen, and naked corymbi.

1. *T. speciosissima*, foliis cuneato-oblongis inciso-dentatis venosis cum ramulis involucrisque glaberrimis.

Embothrium speciosissimum. *Smith New Holl.* 19. t. 7. *Sims Bot. Mag.* 1128.

Embothrium speciosum. *Salisb. Parad.* 111.

- Embothrium spathulatum.* *Cav. Ic.* 4. p. 60. t. 388. *Gært. Carp.* 3. p. 214. t. 218.

HAB. IN *Novæ Hollandiæ* orâ orientali ; prope Port Jackson : locis saxosis, præsertim subumbrosis. (ubi v. v.)

2. *T. truncata*, foliis lanceolato-oblongis integerrimis passimque paucidentatis subtùs ramulisque pubescentulis, involucris extùs tomentosis.

Embothrium truncatum. *Labill. Nov. Holl.* 1. p. 32. t. 44.

OBS. Ala seminis in hac apice semper rotundata in præcedenti sæpiùs truncata observavimus.

HAB. IN *Insulæ Diemen* montibus australioribus. (ubi v. v.)

35. LOMATIA.

Embothrii species. *Smith. Cavan.*

CHAR. GEN. *Calyx* irregularis, foliolis distinctis secundis. *Stamina* apicibus concavis calycis immersa. *Glandulæ* hypogynæ tres, secundæ. *Ovarium* pedicellatum, polyspermum. *Stylus* persistens. *Stigma* obliquum, dilatatum, subrotundum, planiusculum. *Folliculus* ovali-oblongus. *Semina* apice alata; alâ marginatâ disco evasculoso.

HABITUS. Frutices. Folia alterna, in plerisque divisa, v. dentata, rariùs integerrima, quandoque in eodem frutice varia. Racemi terminales, interdum axillares, elongati, laxi, nunc abbreviati, corymbosi, paribus pedicellorum unibracteatis. Flores ochroleuci. Involucrum nullum. Seminis nucleus farinâ sulphurêâ conspersus.

ETYM. λωμα, margo, ob seminum alam marginatam.

1. *L. silaifolia*, foliis bipinnatifidis glaberrimis: pinnulis cuneato-linearibus lanceolatisve incisis acutis mucronatis reticulato-venosis, racemis glaberrimis elongatis divisis simplicibusve.

Embothrium silaifolium. *Smith New Holl.* 23. t. 8. *Willd. Sp. Pl.* 1. p. 537.

Embothrium herbaceum. *Cav. Ic.* 4. p. 60. t. 388.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in campis et ericetis. (ubi v. v.)

2. *L. tinctoria*, foliis pinnatifidis bipinnatifidisve (rarò indivisis) glabris: pinnulis linearibus distichis uninerviis subaveniis obtusiusculis mucronulatis, racemis elongatis glabris indivisis.

Embothrium tinctorium. *Labill. Nov. Holl.* 1. p. 31. tab. 42. et 43.

HAB. In Insulæ Diemen campis et collibus. (ubi v. v.)

3. *L. fer-*

3. *L. ferruginea*, foliis bipinnatifidis tomentosis : pinnulis ovatis lanceolatisve, racemo terminali foliis brevioribus.

Embothrium ferrugineum. *Cavan. Ic.* 4. p. 59.* t. 385.

HAB. In Americæ Australis "San Carlos de Chiloe in solo aquâ marinâ quandoque inundato." *Cavan. l. c.*

- *4. *L. polymorpha*, foliis lineari-lanceolatis integerrimis v. dentatis pinnatifidisve subtus cum ramulis pedicellisque tomentosis, racemis terminalibus corymbosis, calycibus pilosiusculis, pistillis glaberrimis.

α. *cinerea*. Folia lineari-lanceolata integerrima, marginibus recurvis, subtus cinereo-tomentosa ; folliculi semunciales.

β. *rufa*. Folia lanceolata v. lineari-lanceolata, incisa v. pinnatifida, passim integerrima, subtus ferrugineo-tomentosa ; folliculi subunciales.

Embothrii tinctorii var. *Labill. Nov. Holl. l. c.*

HAB. In Insulæ Diemen montibus australioribus. (ubi v. v.)

- *5. *ilicifolia*, foliis oblongo-ovatis acutis spinuloso-dentatis reticulatis petiolisque glaberrimis, racemis terminalibus elongatis.

HAB. In Novæ Hollandiæ orâ australi ; prope Port Phillip : in campis sterilibus lateribusque montium. (ubi v. v. flor. delaps.)

- *6. *L. longifolia*, foliis lineari-lanceolatis elongatis glabris remotè serratis, racemis axillaribus, pedunculis calycibusque pilosiusculis, pistillis glaberrimis.

Embothrium myricoides. *Gært. Carp.* 3. p. 215. t. 218.?

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : ad ripas saxosas fluviorum et rivulorum. (ubi v. v.)

7. *L. den-*

7. *L. dentata*, foliis ovalibus serrato-dentatis petiolisque glaberrimis, racemis lateralibus abbreviatis, calycibus pilosis, ovario tomentoso.†

Embothrium dentatum. *Flor. Peruv. & Chil.* 1. p. 62. t. 94 a.

HAB. In nemoribus et sylvis regni Chilensis. *Flor. Peruv. l. c.*

8. *L. obliqua*, foliis ovatis serratis glabris, racemis axillaribus, pedicellis calycibusque pilosis, stigmatate deciduo.

Embothrium obliquum. *Flor. Peruv. & Chil.* 1. p. 63. t. 97.

Embothrium hirsutum. *Lam. Encyc. Botan.* 2. p. 355. *Illust.*

Gen. 1. p. 245. n. 1286.

HAB. In Conceptionis Chili et Puchacay provinciarum montibus. *Flor. Peruv. l. c.*

Obs. Ala seminis hujus et præcedentis examinanda.

36. STENOCARPUS.

EMBOTHRII species. *Forst. Gen.*

CHAR. GEN. *Calyx* irregularis, foliolis distinctis, secundis. *Stamina* apicibus concavis foliorum immersa. *Glandula* hypogyna unica, semiannularis. *Ovarium* pedicellatum, polyspermum. *Stylus* deciduus. *Stigma* obliquum, orbiculato-dilatatum, planiusculum. *Folliculus* linearis. *Semina* basi alata!

HABITUS. Frutices glaberrimi. Folia alterna, integerrima. Umbellæ axillares, v. terminales, pedunculatæ. Flores ochroleuci.

ETYM. στενος angustus, et καρπος fructus.

1. *S. Forsteri*, foliis oblongis obtusis enervibus.

Embothrium umbellatum. *Forst. Gen.* 16. t. 8. f. a.—f. *Forst.*

Aust. n. 60. *Linn Suppl.* 228. *Lam. Encyc. Botan.* 2. p. 352.

Illust. Gen. 1. p. 245. n. 1285. t. 55. f. 1. *Willd. Sp. Pl.* 1. p. 538.

HAB. In Novâ Caledoniâ. J. R. et G. Forster, (v. s. sine fructu in Herb. Banks. et Lambert.)

*2. *S. salignus*, foliis elongato-lanceolatis basi trinervibus.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson · ad ripas saxosas fluviorum et rivulorum. (ubi v. v.)

37. BANKSIA.

Linn. fil. Suppl.

CHAR. GEN. *Calyx* quadripartitus (rarò quadrifidus). *Stamina* apicibus concavis laciniarum immersa. *Squamulæ* hypogynæ quatuor. *Ovarium* biloculare, loculis monospermis. *Folliculus* bilocularis, ligneus : *Dissepimento* libero, bifido. *Amentum* flosculorum paribus tribracteatis !

HABITUS. Frutices v. Arbores, vix excelsæ. Rami umbellati. Folia sparsa, rarò verticillata, integra, serrata, v. pinnatifido-incisa, in eodem stirpe quandoque varia ; in plantâ juvenili v. mutilatâ sæpè serrata, v. incisa, dum in adultâ et illæsâ integerrima. Amenta solitaria, terminalia v. e dichotomiis, rarò lateralialia, bracteolis nonnullis, brevibus, angustis subtensa, cylindracea, in quibusdam abbreviata. Bracteæ flosculorum persistentes, majores solitariae ; minores geminatae, collaterales, interiores. Amenti fructiferi rachis ut plurimum incrassata, et cum folliculorum basibus conferruminata. Semina nigra, apice cuneato-alata, nucleo in lacunâ respondente dissepimenti lignei semiimmerso.

*1. *B. pulchella*, foliis accrosis integerrimis muticis (unguicularibus), calycis unguibus lanatis : laminis glabris, stigmate depresso-capitato.

HAB.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land; in ericetis aridis prope littora. (ubi v. v.)

- *2. *B. sphaerocarpa*, foliis acerosis integerrimis mucronulatis (uncialibus), calycis unguibus laminisque hirsutis, stigmatе subulato, strobilis globosis, folliculis ventricosіs apice compressiusculis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis depressis. (ubi v. v.)

- *3. *B. nutans*, foliis acerosis integerrimis mucronulatis, amentis nutantibus, calycibus sericeis, folliculis apice dilatatis depressis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis aridis prope littora. (ubi v. v.)

4. *B. ericifolia*, foliis acerosis emarginato-bidentatis (unguicularibus): marginibus integerrimis, amentis elongatis, calycibus sericeis, stigmatе capitato.

Banksia ericæfolia. *Linn. Suppl.* 127. *Lam. Encyc. Botan.* 1. p. 369. *Illust. Gen.* 1. p. 242. n. 1276. *Willd. Sp. Pl.* 1. p. 536. *And. Repos.* 156. *Cavan. Anal. de Hist. Nat.* 1. p. 221.* *Ic.* 6. p. 27.* t. 538. *Pers. Synop.* 1. p. 117.

Banksia. *White's Voy. tab. ad p.* 225. fig. 1. strobilus.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis saxosis. (ubi v. v.)

5. *B. spinulosa*, foliis (adultis) acerosis (1—3-uncialibus) apice tridentatis dente intermedio longiore: marginibus spinuloso-dentatis integerrimisve, calycibus basi intus imberbibus, stigmatе subulato.

Banksia spinulosa. *Smith New Holl.* 1. p. 13.* t. 4. *Willd.*

Sp. Pl. 1. p. 536. *Cavan. Anal. de Hist. Nat.* 1. p. 219.*

Ik. 6. p. 26.* *t.* 537. *Pers. Synop.* 1. p. 17.

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in ericetis aridis. (ubi v. v.)

OBS. Frutex est et sæpiùs humilis, nec Arbor decemipedalis, &c. ut habet Cavanilles. l. c.

- *6. *B. collina*, foliis linearibus spinuloso-dentatis denticulo terminali brevioribus subtùs venosis, bracteis amenti obtusis apice tomentosis, calycibus basi intùs imberbibus, caule fruticoso.

HAB. In Novæ Hollandiæ orâ orientali; in collibus apricis prope littora. Hunter's River. (ubi v. v.)

- *7. *B. occidentalis*, foliis linearibus extra medium spinuloso-dentatis subtùs aveniis, bracteis amenti apice glabris, calycibus marcescentibus: unguibus basi intùs barbatis, folliculis ventricosius tomentosis: apice compressiusculo nudo, caule fruticoso, ramulis glabris.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis. (ubi v. v.)

- *8. *B. littoralis*, foliis elongato-linearibus spinuloso-dentatis basi attenuatis subtùs aveniis, calycibus deciduis, folliculis compressis bracteisque strobili apice tomentosis, caule arborco, ramulis tomentosis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad littora arenosa sinuum. (ubi v. v. flor. delaps.)

9. *B. marginata*, foliis linearibus truncatis mucronulatis integerimis v. dentatis: venulis subtùs inconspicuis, ramis ultimis hirsutis,

hirsutis, bracteis omnibus amenti apice glabris : majoribus acutis, caule fruticoso.

α. Frutex erectus, orgyalis. Amentum foliis plerumque integris longius.

Banksia marginata. *Cavan. Anal. de Hist. Nat.* 1. p. 227. *Ic.* 6. p. 29.* *t.* 544.

β. Frutex erectus, orgyalis. Folia spinuloso-dentata, planiuscula, amento quandoque longiora.

Banksia microstachya. *Cavan. Anal. de Hist. Nat.* 1. p. 224. *Ic.* 6. p. 28.* *t.* 541. exclus. syn. Linnei.

γ. Frutex humilis, diffusus. Folia spinuloso-dentata, planiuscula, cuneata, amento longiora.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in ericetis. (ubi v. v.)

*10. *B. depressa*, foliis elongato-cuneatis truncatis mucronulatis spinuloso-dentatis : subtùs obsoletè costatis venulis inconspicuis, bracteis omnibus amenti (folia vix æquantis) tomentosis obtusis, caule prostrato, ramulis ultimis hirsutis.

HAB. In Insulæ Diemen plagis australioribus ; in saxosis ad radices montium. (ubi v. v.)

*11. *B. patula*, foliis cuneato-linearibus truncatis mucronulatis integris v. paucidentatis (uncialibus) subtùs reticulato-venosis, bracteis amenti apice tomentosis obtusis, calycis laminis carinâ glabrâ, caule diffuso, ramulis ultimis tomentosis.

HAB. In Novæ Hollandiæ orâ australi ; Flinders' Land : inter frutices, in sterilibus elevatioribus. (ubi v. v.)

*12. *B. australis*, foliis linearibus truncatis mucronulatis margine recurvis integris subtùs reticulato-venosis, ramulis ultimis tomen-

tomentosis, bracteis amenti obtusis subæqualibus apice tomentosis, calycis lamiis carinâ obsoletissimâ sericeâ, caule arboreo.

HAB. In Insulâ Diemen, ubique in campis et prope littora, necnon in orâ australi Novæ Hollandiæ prope Port Phillip. (ubi v. v.)

- *13. *B. insularis*, foliis lineari- v. cuneato-oblongis subrotundatis cum mucronulo sparsis verticillatisve subtus reticulato-venosis, bracteis amenti obtusis extrorsum tomentosis, folliculis compressis apice glabris.

HAB. In Insulis Freti Bass, et in Insulâ Diemen, prope littora. (ubi v. v.)

14. *B. integrifolia*, foliis verticillatis oblongo-lanceolatis integris mucronulatis: subtus venulis reticulantibus conspicuis, folliculis tomentosis, caule arboreo.

α. Arbor parva v. mediocris. Folia oblanceolata, sæpius acuta, basi attenuata. Bracteæ geminatae obtusæ, solitariis acutis dimidio minores.

Banksia integrifolia. *Linn. Suppl.* 127. *Lam. Encyc. Botan.* 1. p. 369. *Illust. Gen.* 1. p. 242. n. 1275. *Willd. Sp. Pl.* 1. p. 535. *Cavan. Anal. de Hist. Nat.* 1. p. 229. *Ic.* 6. p. 30. tab. 546.

Banksia spicata. *Gært. Sem.* 1. p. 221. t. 48.

Banksia oleæfolia. *Cavan. Anal. de Hist. Nat.* 1. p. 228. *Ic.* 6. p. 30. t. 545.

Banksia glauca. *Cavan. Anal. de Hist. Nat.* 1. p. 230. *Ic.* 6. p. 31.*

β. Arbor magna. Folia lanceolato-oblonga, sæpius obtusiuscula, basi acuta. Bracteæ geminatae obtusæ, solitariis acutiusculis haud dimidio minores.

HAB.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson :
juxta littora marina. β . In orâ australi, prope Port Phillip.
(v. v.)

Obs. Species polymorpha, cui nimis affines sunt *B. insularis*
et *compar*.

15. *B. compar*, foliis sparsis lingulato-oblongis emarginatis muticis
dentatis integrisve : subtùs reticulato-venosis niveis, ramulis
bracteisque tomentosis, calycibus sericeis, caule arboreo.

HAB. In Novæ Hollandiæ orâ orientali ; prope Keppel Bay :
juxta littora. (ubi v. v. absque fructu.)

Obs. Præcedenti proxima ; an distincta species ?

16. *B. verticillata*, foliis verticillatis lingulato-oblongis obtusis
muticis : subtùs aveniis niveis, bracteis amenti tomentosis
obtusis : involucrantibus hirsutis, caule arboreo.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : prope
littora. (ubi v. v.)

17. *B. coccinea*, foliis alternis cuneato-obovatis oblongisve den-
tatis truncatis costatis reticulato-venosis basi transversis,
bracteis subulatis calycibusque lanatis, stigmate pyramidali.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : in
campis prope littora. (ubi v. v.)

- *18. *B. paludosa*, foliis subverticillatis cuneato-oblongis subtrun-
catis basi attenuatis extra medium dentato-serratis, margine
subrecurvis : subtùs costatis reticulato-venosis, petiolis ra-
mulisque glabris, calycibus sericeis, caule fruticoso.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson :
in paludosis. (ubi v. v.)

19. *B. ob-*

19. *B. oblongifolia*, foliis sparsis angusto-oblongis truncatis dentato-serratis basi acutiusculis : subtùs costatis reticulato-venosis, petiolis ramulisque tomentosis, bracteis majoribus amenti acuminatis, calycibus sericeis, caule fruticoso.

Banksia oblongifolia. Cavan. *Anal. de Hist. Nat.* 1. p. 225.*

Ic. 6. p. 28.* *t.* 542.

Banksia asplenifolia. *Salisb. Prod.* 51?

Banksia salicifolia. Cavan. *Anal. de Hist. Nat.* 1. p. 231.

Ic. 6. p. 31.*? folia enim in hâc specie quandoque integra.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in ericetis. (ubi v. v.)

20. *B. latifolia*, foliis obovato-oblongis spinuloso-serratis basi acutis : subtùs costatis reticulatis cinereo-tomentosis, calycis unguibus sericeis : laminis glabris, caule fruticoso.

Banksia robur. Cavan. *Anal. de Hist. Nat.* 1. p. 226.* *Ic.* 6.

p. 29.* *t.* 543.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in paludosis. (ubi v. v.)

OBS. Hujus speciei nomen Cavanillesii mutare coactus sum, quoniam nunquam arborescit sed frutex humilis est.

21. *B. marcescens*, foliis cuneiformibus planis sparsis truncatis extra medium dentato-serratis : basi acutiusculâ, ramis tomentosis, calycibus persistentibus folliculisque glabris.

Banksia præmorsa. *And. Repos.* 258.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : prope littora. (ubi v. v.)

OBS. Cùm folia minimè præmorsa falsum nomen mutare non hesitavi.

- *22. *B. attenuata*, foliis elongato-linearibus truncatis basi attenuatis extra medium serratis : subtùs costatis reticulatis areolis tomentosis, bracteis apice hirsutis, calycibus glabris, folliculis tomentosis.

HAB. In Novæ Hollandiæ orâ australi ; Lewins Land : prope littora. (ubi v. v.)

- *23. *B. elatior*, foliis elongato-linearibus subtruncatis serratis subtùs reticulatis : adultis glabriusculis, bracteis imberbibus calycibusque tomentosis, stylo glaberrimo, stigmate ovali-clavato, caule arboreo.

HAB. In Novæ Hollandiæ orâ orientali ; prope Sandy Cape : prope littora. (ubi v. v.)

24. *B. serrata*, foliis lato-linearibus elongatis truncatis serratis : subtùs reticulatis glabriusculis : basi attenuatâ, stylo imo pulvereo-pubescenti, stigmate cylindraceo sulcato : basi obliquè incrassatâ, caule arboreo.

Banksia serrata. *Linn. Suppl.* 126.* *Lam. Encyc. Botan.* 1. p. 369. *Illust. Gen.* 1. p. 242. t. 54. f. 1. *White's Voy.* 222. cum tab. 2 prioribus. *Willd. Sp. Pl.* 1. p. 535. *And. Repos.* 82.

Banksia conchifera. *Gært. Sem.* 1. p. 221. t. 48. f. 1.

Banksia serrata. *Cavan. Anal. de Hist. Nat.* 1. p. 222. Ic. 6. p. 27. t. 540. (forsan ad sequentem pertinet.)

Banksia dentata. *Wend. Hort. Herenh. tab.* 8. ? vel ad sequentem pertinens.

HAB. In Novæ Hollandiæ orâ orientali ; prope Port Jackson : in campis prope littora. (v. v.)

- *25. *B. æmula*, foliis lato-linearibus elongatis truncatis profundè serratis : subtùs reticulatis glabriusculis, calycibus sericeis, stigmate

stigmatè capitato exsulco nitido apice (quadrangulo) styli duplò crassiore, caule fruticoso.

Banksia serratifolia. *Salisb. Prod.* 51.?

Banksia serrata. *White's Voy.* 222. *tab. tertia?*

HAB. In Novæ Hollandiæ orâ orientali; prope Port Jackson: in campis arenosis ericetisque. (ubi v. v.)

OBS. *B. serrata* *Cavan.* et *dentata* *Wend.* suprâ ad *B. serratam* citatæ, fortè ad hanc, valdè affinem, pertinent.

26. *B. dentata*, foliis cuneato-oblongis truncatis sinuato-dentatis undulatis basi acutis: subtùs costatis venulosis niveis, calycibus sericeis, folliculis tomentosis.

Banksia dentata. *Linn. Suppl.* 127. *Willd. Sp. Pl.* 1. p. 536.

HAB. In Novæ Hollandiæ orâ orientali, prope Endeavour River; et in septentrionali, Arnheims Land: prope littorâ (ubi v. v.)

- *27. *B. quercifolia*, foliis oblongo-cuneatis subtruncatis glabris serrato-incisis: incisuris mucronatis, calycis laminis aristatis! folliculis glabriusculis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis prope littora. (ubi v. v.)

- *28. *B. speciosa*, foliis linearibus pinnatifidis: lobis triangulari-semiovatis mucronatis subtùs niveis obsoletè nervosis, calycis laminis lanatis, stylo pubescenti, folliculis tomentosis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in saxosis prope littora. (ubi v. v.)

29. *B. grandis*, foliis pinnatifidis: lobis triangulari-ovatis acutis planis subtùs nervosis glabriusculis, calycis laminis folliculisque glabris.

Banksia

Banksia grandis. Willd. *Sp. Pl.* 1. p. 535.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

30. *B. repens*, foliis pinnatifidis: lobis sinuatis v. dentatis, caule prostrato.

Banksia repens. Labill. *Voy.* 1. p. 412. t. 23. *Nov. Holl.* 2. p. 118.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis collibusque saxosis. (ubi v. v.)

*31. *B. ilicifolia*, foliis cuneatis inciso-serratis subtùs glabriusculis, amentis brevissimis, calycis unguibus diu cohærentibus stylum æquantibus: laminis citiùs dehiscensibus!

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in campis collibusque prope littora. (ubi v. v.)

Obs. Species tam singularis ut ferè proprii generis, transitum ad Dryandras facilem reddit,

38. DRYANDRA.

CHAR. GEN. *Calyx* quadripartitus v. quadrifidus. *Stamina* apicibus concavis laciniarum immersa. *Squamulæ* hypogynæ quatuor. *Ovarium* biloculare, loculis monospermis. *Folliculus* bilocularis, ligneus: *Dissepimento* libero, bifido. *Receptaculum commune* planum, floribus indeterminatim confertis, paleis angustis, rarò nullis. *Involucrum commune* imbricatum.

HABITUS. Frutices plerumque humiles. Rami dum adsint sparsi vel umbellati. Folia sparsa, pinnatifida v. incisa, plantæ juvenilis conformia. Involucra solitaria, terminalia, rarò lateralialia sessilia, foliis confertis interioribus quandoque nanis obvallata, hemisphærica, bracteis adpressis, in quibusdam apice appendiculatis.

OBS. *Dryandra* of Thunberg, first published in *Flora Japonica*, being not generically different from *Aleurites*, which was previously established by Forster, I have peculiar satisfaction in giving the name of my respected friend, Mr. DRYANDER, to a genus so nearly related to *Banksia*, from which indeed it differs chiefly in Inflorescence, but in that respect so widely as to be at once distinguishable : there is also something in the habit, especially in the leaves of the greater number of species, by which, independent of the parts of fructification, the genus is pretty certainly indicated ; and it is worthy of notice, that, while *Banksia* is generally spread over all the coasts of New Holland and of Van Diemen's Island, *Dryandra* has hitherto been observed only on that part of the south coast called Lewins Land, where, however, its species are nearly as numerous and abundant as those of *Banksia* itself.

- *1. *D. floribunda*, foliis cuneiformibus inciso-serratis, involucri bracteis exterioribus glabriusculis, calycis laminis glabris, stigmate subclavato obtuso.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land : in collibus saxosis. (v. v.)

Variat receptaculo epaleato.

- *2. *D. cuneata*, foliis cuneiformibus sinuato-dentatis spinosis petiolatis, involucri bracteis omnibus sericeis, calycis laminis barbatis, stigmate subulato-filiformi acuto.

α. Folia vix sesquiunciam longa, dentibus terminalibus subæqualibus.

β. Folia biuncialia, apicis dilatati denticulo medio brevioris sinubus latioribus. Forsan species distincta.

HAB.



HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

- *3. *D. armata*, foliis pinnatifidis: lobis triangularibus planis divaricatis rectis spinoso-mucronatis: terminali proximis longiore; subtùs reticulatis venulis nudis, ramis calycisque laminis glabris, stylo basi pubescenti, stigmate subulato sulcato.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.):

- *4. *D. falcata*, foliis pinnatifidis: lobis subulato-triangularibus divaricatis falcato-recurvis spinoso-mucronatis: terminali proximis brevioribus; subtùs reticulatis venulis nudis, ramis pubescentibus, laminis calycis styloque longitudinaliter glabris, stigmate clavato exsulco.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

- *5. *D. formosa*, foliis elongato-linearibus pinnatifidis: lobis scaleno-triangularibus muticis planis subtùs niveis, involucri tomentosis: foliolis interioribus linearibus oblongis, receptaculo paleaceo. *Tab. III.*

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in sterilibus prope littora. (ubi v. v.)

6. *D. mucronulata*, foliis elongato-linearibus pinnatifidis: lobis isoscelo-triangularibus mucronulatis planis subtùs niveis, involucri tomentosis: foliolis interioribus linearibus mucronatis, receptaculo paleaceo, caule subsimplici.

HAB.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in depressis saxosis. (ubi v. v.)

- *7. *D. plumosa*, foliis elongato-linearibus pinnatifidis: lobis isoscelo-triangularibus mucronulatis margine subrecurvis subtùs niveis, involucris foliolis interioribus plumoso-aristatis, receptaculo epaleato.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land; in lateribus saxosis collium. (ubi v. v.)

- *8. *D. obtusa*, foliis linearibus pinnatifidis caule decumbenti tomentoso longioribus: lobis triangularibus obtusis subtùs niveis margine incrassato-recurvis, involucris bracteis exterioribus ovatis, interioribus lineari-oblongis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in apricis prope littora. (ubi v. v.)

9. *D. nivea*, foliis linearibus pinnatifidis caulem glabrum subæquantibus: lobis scaleno-triangularibus acutis mucronulatis subtùs niveis margine recurvis, involucris bracteis lineari-lanceolatis glabris ciliatis, calyce quadrifido, unguibus laminisque hirsutis.

α. Folia lobis adscendentibus, mucronatis, subtùs venosis. Stigma stylo parùm crassius.

Banksia nivea. *Labill. Voy.* 1. p. 413. t. 24. *Nov. Holl.* 2. p. 118.

β. Folia lobis divaricatis, uninerviis, subaveniis. Stigma stylo vix crassius.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in saxosis prope littora. (ubi v. v.)

*10. *D. lon-*

- *10. *D. longifolia*, foliis linearibus pinnatifidis longissimis acutis subtùs cinereo-tomentosis: basi attenuatâ integerrimâ; lobis triangularibus adscendentibus decurrentibus margine recurvis, involucri bracteis elongato-linearibus margine barbatis extùs glabris, calycis unguibus basi lanatis suprâ pubescentibus: laminis pilosiusculis, caule tomentoso.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in collibus saxosis. (ubi v. v.)

- *11. *D. tenuifolia*, foliis elongato-linearibus pinnatifidis subtruncatis subtùs niveis: basi attenuatâ integerrimâ petioliformi; lobis triangularibus decurrentibus divaricatis margine recurvis, involucri bracteis tomentosis: exterioribus ovato-lanceolatis, calycis unguibus basi lanatis suprâ cauleque glabris.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: in ericetis. (ubi v. v.)

- *12. *D. pteridifolia*, foliis pinnatifidis caule tomentoso longioribus: lobis linearibus acutis mucronatis margine revolutis basi dilatatis, involucri bracteis tomentosis ovatis.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: ad latera saxosa collium. (ubi v. v.)

- *13. *D. blechnifolia*, foliis pinnatifidis caule tomentoso longioribus: lobis linearibus obtusis mucronulatis trinerviis margine recurvis basi simplici.

HAB. In Novæ Hollandiæ orâ australi; Lewins Land: prope King George's Sound. *D. Archibald Menzies*. (v. s. absque fructificatione.)

Obs. Ad hoc genus retuli, ob summam affinitatem cum *Dryandra pteridifoliâ*, cujus vix varietas.

To

TO RENDER this essay as complete as I am able, I proceed to notice such plants, as either belong or have been referred to *Proteaceæ*, but from my imperfect acquaintance with which, or from the unsatisfactory accounts hitherto given of them, could not with certainty be referred to any of the genera described, or, if referable to any of them, I could not with confidence propose as distinct species; and shall conclude with the addition of a few synonyms to the species described, from Ray's *Historia Plantarum*, which had escaped me when the paper was first read to the Society.

LEUCADENDRON linifolium, foliis lineari-spathulatis aversis basi attenuatis ramisque glabris, capitulo masculino sessili foliis circumvallantibus longiore, calycis tubo barbato: laminis stylisque imberbibus.

Protea linifolia. Jacq. *Hort. Schænb.* 1. p. 11. t. 26.

Obs. There can be no doubt of the genus of this plant, or of the individual figured by Jacquin being a male. From the same figure, by which alone I am acquainted with it, it seems to be very nearly related to *Leucadendron tortum*, from which it differs in having the male heads sessile, and in the laminæ of the calyx being quite smooth.

LEUCADENDRON fusciflorum, foliis lineari-lanceolatis glabris junioribus rectis basi attenuatis, capitulo femineo foliis circumvallantibus brevioribus, calycis laminis plumoso-barbatis: tubo pilosiusculo.

Protea fusciflora. Jacq. *Hort. Schænb.* 1. p. 11. t. 27.

This

This also is known to me only from Jacquin's figure, from which it is unquestionably a *Leucadendron*, and a female plant; it can hardly however be supposed the female of the preceding species; and though I have here constructed a specific character for it, I think it is not improbably a variety of *Leucadendron angustatum*.

LEUCADENDRON.

Protea linearis. Houtt. *Nat. Hist. par. 2. vol. 4. p. 116. t. 19. f. 2. ed. Germ. vol. 3. p. 84. t. 19.*

This is undoubtedly a *Leucadendron*, and probably a female plant; but from the figure alone its species cannot be determined.

LEUCADENDRON.

Protea stellaris. Sims *Bot. Mag.* 881.

Seems to be a male plant, and apparently different from any thing I have seen. From the form of the leaves and the length of those surrounding the capitulum, I am inclined to consider it as the male of Jacquin's *Protea fusciflora* already noticed.

LEUCADENDRON.

Conocarpodendron; folio tenuissimo, angustissimo, saligno; cono calyculato. Boerh. *Lugd. Bat. 2. p. 203. c. tab.*

This is probably a male plant, notwithstanding the figure of a ripe cone is given at the bottom of the plate; the separate fruits of some of Boerhaave's figures belonging decidedly to very different species. It may be the male of *Leucadendron adscendens*.

LEUCADENDRON?

Protea odorata. Thumb. *Prod. Append.* 187.

There is no means of determining the genus of this plant, but it is rather more probably a *Leucadendron* than belonging to any other.

LEUCADENDRON??

Conocarpodendron ; acaulon ; folio rigido, nervoso, oblongo, latiori ; cono fusco ; semine oblongo, in mediò quasi excavato. *Boerh. Lugd. Bat. 2. p. 201. c. tab.*

I know not what to make of this. If the strobilus and nuces at the bottom of the plate really belong to it, it must be referred to *Leucadendron*, and will stand near *L. retusum* or *L. plumosum* ; but there are some circumstances both in the figure and description which render this very doubtful. Thunberg refers it to his *P. strobilina*, but the descriptions by no means agree.

LEUCADENDRON?

Scolymocephalus Oleæ folio. *Sherard. in Raj. Hist. 3. Dendr. p. 10.*

This, according to Boerhaave, is his *Conocarpodendron*, &c. 2. p. 197. c. tab. which I have considered as the female of *Leucadendron squarrosum*.

LEUCADENDRON??

Protea glabra. *Thunb. Diss. n. 52.*

From the very short and unsatisfactory description of Thunberg, the genus of this plant cannot be determined, or even with much probability guessed at.

ISOPOGON.

Protea divaricata. *And. Repos. 465.*

Can this be a variety of *Isopogon anemonifolius* ? The yellow flowers

flowers satisfy me that it is not a species of *Serruria*, and prevent me at the same time from referring it to *Isopogon anethifolius*, whose leaves are not unlike, but whose flowers are of a very different colour.

PROTEA.

Protea venosa. *Lam. Illust. Gen.* 1. p. 234. n. 1212. *Poiret. Encyc. Botan.* 5. p. 640.

Said by Poiret to resemble in most respects *Protea longiflora*; it must therefore be a genuine *Protea*.

PROTEA.

Scolymodendros Africanus ex Monte Tabulari. *Pluk. Mant.* 168. t. 442. f. 4.

This is manifestly a *Protea*, which it appears Plukenet had seen only in the possession of Woodward. The head, especially in the form of the bracteæ, bears a great resemblance to that of *Protea cynaroides*; but the leaves are so very different, that, unless we suppose they were drawn from memory and disproportionately reduced, it cannot be referred to this species. It is probably however one of the more common kinds, and I know not what else to suppose it may be, except *Protea grandiflora*. The figure itself has never, so far as I know, been noticed by any author.

LEUCOSPERMUM.

Scolymocephalus Africanus, foliis in summitate profundius crenatis, intercreniis majoribus florum staminulis longis recurvis. *Raj. Hist.* 3. *Dendr.* p. 10.

This is probably a *Leucospermum*, and perhaps *L. ellipticum*.

MIMETES ?

Protea dichotoma. *Lam. Illustr. Gen.* 1. p. 235. n. 1219. *Poiret.*

Encyc. Botan. 5. p. 643.

Probably a spurious *Mimetes*.

SERRURIA Bergii, capitulis simplicibus solitariis subpedunculatis, bracteis cuneiformibus truncatis cum acumine villosis : inferioribus glabris, calycibus curvatis sericeis, stigmate turbinato-capitato, ramulis foliisque glabris.

Leucadendron sphærocephalum. *Berg. cap.* 26.*

This I have no hesitation in referring to *Serruria*; and from the description of the accurate *Bergius* I am disposed to think it distinct from any I am acquainted with. It seems most nearly related to *Serruria acrocarpa*, differing chiefly in the smoothness of its branches, and in having terminal heads.

SERRURIA.

Protea sphærocephala. *Houtt. Nat. Hist. par.* 2. vol. 4. p. 99. t. 19. f. 1. ed. *Germ.* vol. 3. p. 72. t. 19.

Unquestionably a *Serruria*, and probably referable either to *S. hirsuta* or *pedunculata*.

SERRURIA.

Protea villosa. *Thunb. Prod. Append.* 186.

A *Serruria* whose characters cannot be made out from the specific difference given by *Thunberg*.

SERRURIA.

Protea triternata. *And. Repos.* 337.

This may be intended for *S. congesta*, but I cannot with confidence refer to it as such.

SERRURIÆ.